

GOVERNMENT OF INDIA.
HOME DEPARTMENT.

THE PLAGUE IN INDIA,
1896, 1897.

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APPENDICES VII TO XII.



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APPENDIX VII.

MEASURES OUTSIDE THE BOMBAY PRESIDENCY.

CORRESPONDENCE WITH THE GOVERNMENT OF BENGAL ABOUT SEGREGATION AND THE REVISED BENGAL PLAGUE REGULATIONS.

No. 1.

No. 286-T. M., dated Darjeeling, the 3rd June 1897.

From—H. H. RISLEY, Esq., C.I.E., Secretary to the Government of Bengal, Municipal (Medical) Department,

To—The Secretary to the Government of India, Home Department.

In Mr. Thornton's letter No. 1181 of the 2nd April, the Government of India suggested that either Dr. Lowson or Dr. Reade, who had worked at Hongkong during the outbreak of plague at that place, and had "given most valuable advice to the Government of Bombay," should pay a visit to Bengal for the purpose of advising this Government. In my letter of the 13th April, the Lieutenant-Governor expressed his wish to have the advice of Dr. Lowson on the question of the measures to be taken in the event of plague spreading to Calcutta.

2. Before this correspondence took place the Lieutenant-Governor had already had under consideration the question of modifying some of the regulations issued under the Epidemic Diseases Act, 1897, in the light of the experience gained in combating plague in Western India. That experience seems to show that the distinction between isolated cases and a well-defined outbreak, which was recognised when the Bengal Regulations Nos. 4 and 5 of 10th February were framed, cannot be safely maintained, and that whatever precautions may be authorised by law should be brought into force directly a single case occurs. Regulations Nos. 6 and 7 of the 12th March are, it is true, not based upon this distinction, but they are not as comprehensive as Nos. 4 and 5 of the 10th February, and in respect of segregation they are far more severe. It also appeared desirable that the Bengal regulations should conform as closely as possible to those in force in neighbouring provinces.

3. While these points were being considered, representations were received from the Muhammadan community and the Indian Medical Association on the subject of the regulations, and it came in various ways to the Lieutenant-Governor's notice that some alarm had been caused among both Hindus and Muhammadans by the prospect of the existing plague regulations, especially those relating to segregation, being brought into force. In order to allay the apprehensions of the native community, without abating the stringency of the measures necessary to combat the plague successfully in this province, the Lieutenant-Governor caused a fresh set of rules to be drafted and circulated to a number of representative Muhammadan gentlemen for opinion. A deputation of Muhammadans was at the same time received by the Secretary to this Government, who on two occasions discussed at great length with them and with the Commissioner of Police, Calcutta, and the Chairman of the Calcutta Municipality, the points which they considered open to objection in these draft rules. They have since submitted a memorial which, with the letter of the Indian Medical Association expressing the views of the Hindu community, is enclosed in original. These memorials have been fully considered, and the requests therein made have, as far as practicable, been given effect to in the enclosed draft Regulation No. 8.*

4. Just as the regulation was ready for publication, Dr. Lowson arrived in Bengal, and the Lieutenant-Governor thought it right to consult him on the subject. After making a thorough inspection of Calcutta and Howrah with reference to the facilities for combating an outbreak of plague in either town, Dr. Lowson has expressed his views on the subject of segregation in the letter of the 1st June, copy of which is annexed.* It will be seen that in his opinion the system of home segregation authorised by rule 31 of the draft regulation is likely to prove absolutely ineffectual in the event of even a few cases of plague occurring, and that to proceed on these lines is to court disaster. The Lieutenant-Governor fully recognises the social and political objections to enforcing immediate removal to hospitals and segregation camps, and at first he declined to modify the regulation to meet Dr. Lowson's views; but after once more personally discussing the question with him, Sir Alexander Mackenzie is driven to the conclusion that no system of home-segregation could be successfully worked in Calcutta. It would seem to be unwise to reject the teaching of experience in a matter of this importance, and Dr. Lowson attributes much of the mortality in Bombay to futile efforts in this direction in the early stages of the epidemic, and failure to realise the imperative necessity of isolating at the earliest

* Not printed.

possible stage all sources of infection. His Honour is disposed, therefore, to substitute for rule 31 the following:—

"If on examination of a sick person the Health Officer suspects that such person is suffering from or infected with plague, he may cause such person to be removed to a hospital, and may arrange for his detention, dieting and medical treatment therein. He may also cause the other occupants of the house in which such person resides to be removed to a segregation camp and to be detained under observation for ten days.

"When particular castes or classes of the community have constructed at their own cost private hospitals and segregation camps, the site and plan of which have been approved by the Health Officer, and have arranged, to that officer's satisfaction, for the medical administration of such hospitals and camps, sick or suspected persons may, if they so desire and if accommodation is available, be removed to the private hospital or segregation camp constructed for the use of the caste or class to which they belong instead of to a public hospital or camp.

"In both public and private camps and hospitals separate and suitable accommodation shall be provided for females, and in the case of a female who, by the custom of the country does not appear in public, her *parda* shall be strictly preserved both in removal to the camp or hospital and during her stay there. The friends and servants of sick persons shall be permitted to accompany them to hospital, but shall be subject to the same rules as regards segregation as if they were sick themselves."

5. The Lieutenant-Governor believes that the above rule concedes everything that can reasonably be demanded by the higher classes of Hindus and Muhammadans. If, as Dr. Lowson has urged, the hospitals and camps are established in available open spaces near the houses of the sufferers, but little hardship will be involved in insisting on removal thereto. As, however, the Government of the North-Western Provinces has adopted what Dr. Lowson declares to be a hopelessly impracticable scheme of home-segregation, and has thereby greatly increased the political difficulty of introducing more stringent measures, I am desired to submit the question for the orders of the Government of India. The Lieutenant-Governor is not prepared to adopt a system which the expert placed at his disposal declares to be fatal in its results and condemned by all experience. There appear to be three possible courses open to us:—

- (1) To enact the draft regulation as it stands, trusting that the plague may not reach Calcutta and Howrah, or, if it does, that the clause requiring deposit of the cost as a condition precedent to house-segregation will deter all but a few families from applying for the privilege. It may be added that should an outbreak occur the panic would be so great that the most stringent measures might then be adopted without provoking resistance, but by the time the disease had spread to the extent of causing a panic it would probably be too late for segregation to be of any use.

2. It appears from your letter that the Government of Bengal has considered the modification of these notifications from two points of view. In the first place His Honour the Lieutenant-Governor considers that the experience that has been gained of the plague shows that the distinction between isolated cases and a well-defined outbreak which was recognised when the Bengal Regulations Nos. 4 and 5 were framed cannot be safely maintained, and that whatever precautions may be authorised by law should be brought into force directly a single case occurs. It is pointed out that, although the subsequent Regulations Nos. 6 and 7 of the 22nd March are not based upon this distinction, they are not as comprehensive as Regulations Nos. 4 and 5, and in respect of segregation they are far more severe.

3. In the second place representations were received by the Government of Bengal from the Muhammadan community and the Indian Medical Association on the subject of the regulations, and it came in various ways to the Lieutenant-Governor's notice that some alarm had been caused among both Hindus and Muhammadans by the prospect of the existing plague regulations, especially those relating to segregation, being brought into force. After considering the objections taken to the existing rules and consulting the heads of the native community, the Government of Bengal drew up a new draft regulation numbered 8, a copy of which is forwarded with your letter. Rule 31 of this draft deals with the subject of segregation, and provides that the isolation of the sick may be carried out in, or in the immediate neighbourhood of, their own homes, if there is suitable accommodation for such isolation, and if a sum sufficient to meet the probable expenses of isolation is deposited. Just as the regulation was ready for publication, Dr. Lowson arrived in Bengal and the Lieutenant-Governor consulted him on the subject. Dr. Lowson expressed views strongly adverse to the proposed system of home-segregation which he considered likely to prove absolutely ineffectual in the event of even a few cases of plague occurring. His Honour the Lieutenant-Governor, after discussing the question with Dr. Lowson, was driven to the conclusion that no system of home-segregation could be successfully worked in Calcutta, and is disposed to substitute for rule 31 of draft Notification No. 8, the rule set forth in paragraph 4 of your letter. That rule provides for the compulsory removal of all persons suffering from, or infected with, plague to a plague hospital maintained either by the Government or by some particular caste or class of the community. His Honour the Lieutenant-Governor submits the question for the orders of the Government of India with the remark that he is not prepared to adopt a system which the expert placed at his disposal declares to be fatal in its results and condemned by all experience.

4. I am in the first place to explain that Dr. Lowson is in no sense the representative of the Government of India. The Government of India have never expressed their adherence to his views, nor have they accredited him to Local Governments with the object of expressing to them the views of the Government of India. The Government of Bombay informed the Government of India that Dr. Lowson's experience had been useful, and suggested that other Local Governments might wish to avail themselves of it. The Government of India had no objection and circulated the suggestion. But it was no part of their intentions that the Local Governments should do more than consider on its merits any suggestion Dr. Lowson might make, and the danger of following his advice without giving full consideration to aspects of the question which would not occur to him is illustrated by the tone of his letter of June 1st, and by his condemnation of the rules prescribed for the North-Western Provinces and Oudh. The form of the rules in the North-Western Provinces and Oudh was dictated by considerations with which Dr. Lowson was absolutely unfamiliar, and the Government of India can conceive nothing more dangerous than to rely in a matter of this nature on the advice of a medical expert who shows himself so little able to appreciate the position of the Governments in India as to be prepared to entirely ignore political reasons.

5. The Government of India wish it to be understood that it is for the Government of Bengal to thoroughly inform itself and finally advise as to what measures can be safely taken in the matter of segregation. It has, on the one hand, to consider the danger of the spread of plague and the question whether and to what extent home-segregation could be enforced. On the other hand, it must take into account the state of feeling in the province and the extent to which political disaffection and disorder are to be apprehended from the enforcement of a rule rendering every person suspected of suffering from, or being infected with, plague liable to be sent to hospital.

The Governor General in Council, on the information at present before him, is disposed to agree that segregation is the best preventive measure that can be devised, and that if it is to be enforced in a place like Calcutta segregation in hospital is essential for the greater part of the population likely to be affected. But His Excellency in Council considers that in carrying out any measures of segregation due regard should be had, as in the case of Europeans, to the position in society of those classes of the native community who can be relied on to take efficient measures with the object of preventing the spread of infection, and to other considerations of a like nature.

6. There is another respect in which it appears to the Government of India that the draft rule set forth in paragraph 4 of your letter

should be made more explicit, if it ever becomes necessary to introduce and enforce it. They consider that it should be clearly stated that the hospitals, whether Government hospitals or private caste hospitals, should be so arranged as to provide accommodation for the immediate family of the patients. The percentage of fatal cases among plague patients is so high that the Government of India cannot regard it as humane to separate the sufferers from their families and friends, and the Governor General in Council apprehends that such enforced separation of relations and friends may be at the bottom of much of the agitation against the rules requiring segregation, and that it leads to dangerous concealment of disease.

7. In paragraph 5 of your letter it was stated that three possible courses appeared to be open, and it was suggested that, if the Government of India accepted any one of these courses without material modification, the orders might be communicated by telegram. In my telegram No. 1692, dated the 15th instant, it was stated that the Government of India considered that the third alternative course—to leave things as they are—was the best. It appeared to the Government of India that, if His Honour the Lieutenant-Governor considered that the modified rule enforcing segregation in hospitals was necessary, it would be unwise to issue the rule in Notification No. 8, permitting home-segregation; and, on the other hand, that, as the great diminution of the plague in the Bombay Presidency has made the danger to Calcutta remote, it is unnecessary at the present juncture to excite disaffection by publishing a rule which it may never be necessary to enforce.

At the same time it may be well to have the regulation in readiness should it ever be required, and the Governor General in Council will be glad to be favoured with any revised proposals His Honour may desire to make after he has considered the observations contained in this letter.

No. 3.

No. 1348-T. M., dated Darjeeling, the 1st November 1897.

From—H. H. RISLEY, Esq. C.I.E., Secretary to the Government of Bengal, Municipal (Medical) Department,

To—The Secretary to the Government of India, Home Department.

I am directed to address you with reference to your letters No. 1768, dated 30th June 1897, and No. 2281-A., dated the 14th October 1897, on the subject of the proposed modification of some of the plague regulations issued by this Government under the Epidemic Diseases Act, 1897, and the examination of passengers travelling by railway from infected areas.

2. In paragraphs 5 and 6 of the first letter the Government of India make certain observations and suggestions as to the general policy to be followed and the particular measures to be adopted in the matter of segregation. Paragraph 7 of the same letter explains the decision of the Government of India (which had already been communicated by telegram) in respect of the publication of the draft Regulation No. 8, which was submitted with my letter No. 206-T. M., dated the 3rd June 1897. It is further stated that it may be well to have the regulation in readiness should it ever be required, and that the Governor General in Council will be glad to be favoured with any revised proposals the Lieutenant-Governor may desire to make after considering the observations contained in your letter.

3. In order to give all classes of the native community in Calcutta the fullest opportunity of expressing their views on the question, representatives of the Bengali Hindus, the Muhammadans, the Jains, the Marwaris, and the Parsis were invited to meet the Medical Board on the 2nd September last, for the purpose of discussing informally the draft rule relating to segregation, which had meanwhile been amplified so as to include the following concessions:—

- (1) that relatives, friends, *hakims*, and priests of sick persons should be allowed free access to them during the day-time;
- (2) that members of the family in attendance on a sick person should be admitted to hospitals, but should be required to sleep in suitable accommodation provided in the compound;
- (3) that the hospitals need not be in remote or inconvenient situations.

4. The entire regulation was laid before the meeting, but the discussion was confined to the provisions relating to segregation, and none of the other rules were objected to. The representatives of the Bengali Hindus pressed for the recognition of home-segregation on the ground that the social customs of the people of Calcutta differed greatly from those of the people of Bombay, and the Hon'ble Babu Surendra Nath Banerjee put forward two suggestions designed to bring about this result:—

- (a) "that the word 'hospital' in the rules should be held to mean any place or house, not being merely a room, with a courtyard, or, if standing apart, without a courtyard, which has been set apart with the approval of a committee of three experts, of whom one is the Health Officer, for the reception of plague patients and their attendants, and which is not used as a dwelling-house;

- (b) "that inmates of infected houses should be allowed to remain under observation ten days in any uninfected houses chosen by themselves and approved of by medical experts at their own expense."

5. The Lieutenant-Governor is clearly of opinion that neither of these proposals can be accepted. Their practical result would be to introduce home-segregation on a large scale, and to multiply the so-called "hospitals" to such an extent that no effective control could be exercised over the intercourse of plague patients and suspects with uninfected members of the community. At the same time the Lieutenant-Governor feels much sympathy with the desire of the upper classes of natives that in guarding against spread of plague in Calcutta as little violence as possible should be done to their social traditions and usages, and he is anxious to make every concession that is consistent with the paramount duty of preventing the spread of the disease. With this object rule 31 of the draft Regulation (46 * of that now submitted) has been further amended to the following effect:—

46. *Segregation.*—(1) If on examination of any person the Health Officer suspects that such person is suffering from or infected with plague, he may cause such person to be removed to a hospital, and may arrange for his detention, dieting and medical treatment therein. He may also cause the other occupants of the house in which such person resides to be removed to a segregation camp and to be detained under observation for ten days. In the case of *parda-nashin* ladies a lady doctor shall conduct the examination.

(2) When private plague hospitals or segregation camps have been provided and fully equipped by or for particular castes, classes, joint families, or associations of families, and the Health Officer, or in Calcutta two members of the Plague Commission empowered for this purpose by the President, have in writing approved of the site, plan, furniture and arrangements for medical administration of such hospitals and camps, sick or suspected persons may, if they so desire and if accommodation is available, be removed to the private hospital or segregation camp constructed for the use of the caste, class or family to which they belong, instead of to a public hospital or camp.

(3) In both public and private camps and hospitals separate and suitable accommodation shall be provided for females, and in the case of a female who, by the custom of the country, does not appear in public, her *parda* shall be strictly preserved both in removal to the camp or hospital and during her stay there.

(4) The relatives, friends, *hakims*, and priests of sick persons shall be allowed free access to them during the daytime, subject only to such precautions as the Health Officer may consider necessary.

(5) Members of the family of a sick person who are in attendance on him may also be admitted to the hospital, whether public or private, provided that they shall sleep in the compound in suitable accommodation provided for the purpose, and not in the hospital itself.

Explanation 1.—It is not necessary that hospitals provided in accordance with this rule should be constructed in remote or inconvenient situations.

Explanation 2.—Persons desirous of taking advantage of clause (2) should at once communicate with the Plague Commission, and satisfy that body of their ability to provide adequate hospitals and camps when plague breaks out.

Explanation 3.—Private hospitals and camps may be closed by order of the Plague Commission, if the Health Officer reports that medical attendance and segregation are not maintained to his satisfaction, or that the conditions on which such camps or hospitals were sanctioned are not complied with.

6. It will be seen that, following the analogy of the second clause * of rule 12 of Regulation No. 4 of the 10th February 1897, which was based upon a suggestion made by a native gentleman to the President of the Medical Board, the system of caste and class hospitals, which has worked successfully in Bombay, has been extended under certain conditions to joint families or associations of families. This concession will render it possible for the upper classes of the native community to secure for themselves and their families complete privacy in the event of their being attacked by plague, and being required, in the interests of the general public, to submit themselves to segregation; while at the same time it will enable the Plague Commission (Medical Board) to see that the privilege is not abused, and to limit the privilege to the classes referred to in the second clause of paragraph 5 of your letter of the 30th June. The Lieutenant-Governor hopes that it will be possible to induce persons intending to take advantage of clause (2) to come forward in time and communicate with the Plague Commission. When plague actually breaks out it will be too late to make any but the simplest arrangements, and persons who have not organised their private hospitals beforehand will find themselves compelled to resort to those provided for the general public.

7. In other respects the draft regulation is based for the most part upon the corresponding rules in force in the North-Western Provinces, which have been modified so as to adapt them to the administrative arrangements of Bengal. The only points which seem to require special notice are the following:—

- (1) Bengal Plague Notification No. 1 of the 10th February 1897 has been cancelled as being *ultra vires* in that it delegated to the Medical Board powers which can only be exercised by Government. The opportunity has also been

* "Provided that when the Medical Board is satisfied that suitable and sufficient accommodation for the complete segregation of infected and suspected persons and efficient medical attendance have been provided by an association of families, it may exempt such families from the provisions of this regulation. This exemption may be withdrawn if the Health Officer reports that medical attendance and segregation are not maintained to his satisfaction."

taken to add to the number of that body with special reference to the duties assigned to it by rule 46 (2), to define its functions more precisely, and to change its designation, which has given rise to some misapprehension, from "Medical Board" to "Plague Commission."

- (2) Provision has been made in rules 4 to 14 and 25 to 28 for the subsidiary precautions referred to in paragraphs 7 and 8 of your letter of the 14th October 1897. These rules have been drawn up in consultation with the Inspector-General of Police, and aim at combining the system hitherto in force in Bengal with that which has been adopted in the North-Western Provinces and Central Provinces. A double check will thus be exercised over the movements of travellers from infected areas, and to this the Lieutenant-Governor proposes to add the further precaution of inspection by an itinerant staff of railway police whose business will be to test the observance of the rules by occasional inspections. The arrangements now proposed appear to the Lieutenant-Governor to be very complete, and if supplemented (as recommended in my telegram of the 30th October) by the device of issuing specially coloured tickets to persons travelling by rail from infected areas, will enable the medical officers in charge of the principal inspection stations at Khana, Katihar, and Khurda to pass many persons whom they might otherwise be inclined to suspect of having broken a journey which commenced in an infected area with the object of evading inspection. The annoyance of unnecessary examination and possible detention will thus be reduced, and the medical officers will be enabled to give more time to the examination of travellers from infected areas.
- (3) Rules 23 and 24 and 33 to 38 confer upon the Magistrate of the district and, in Calcutta, upon the Chairman of the Corporation extensive powers in respect of appointing Health Officers and their subordinates, cleansing houses and premises, abating overcrowding, providing hospitals, etc. Recent experience has shown that Municipal Commissioners in Bengal cannot be trusted to take timely or vigorous action in respect of these matters. As the Government of India are aware, it was only by the strongest pressure that the Commissioners of Calcutta were induced to sanction an adequate establishment for the removal of the large accumulations of filth brought to

notice by the enquiries of the Medical Board ; and at the present time, if plague were to appear in Calcutta, it would find the town without a Health Officer capable of dealing with such an emergency. The case of the adjacent municipalities is even worse. The Lieutenant-Governor has now before him a strong representation from the Chamber of Commerce on the subject of the insanitary condition of Serampore ; and in most of the smaller municipalities near Calcutta on either bank of the Hooghly the state of things is equally bad. The only remedy is to appoint a Health Officer with a sufficient staff to put matters right ; but the income of the municipalities is small ; they could not afford to pay separate Health Officers, and jealousy and party spirit are too strong among them for there to be any chance of their agreeing to combine to pay a Health Officer. In view of the danger to Calcutta arising from these insanitary areas, the Lieutenant-Governor is satisfied that the time has come for Government to intervene and to empower the Magistrates of Howrah, Hooghly, and the 24-Parganas to take such measure as are necessary to enforce reforms. They will be instructed to proceed with due regard to considerations of economy ; but however careful they may be, the Lieutenant-Governor apprehends that it will be necessary to supplement the resources of the municipalities by borrowing under the Emergency Loans Act. His Honour trusts that the Government of India will be able to find the requisite funds in the event of the Provincial Loans Budget being exhausted.

8. As regards paragraph 6 of your letter of the 14th October, I am to say that the wording of paragraph 4 of Mr. Oldham's letter No. 806-T. M., of the 21st September 1897, seems to have given rise to some misapprehension. The intention of that paragraph was to inquire whether the inspections in other provinces were conducted on the same lines as that carried on at Khana. At Khana it has at no time been the practice to detain all passengers coming from infected areas. Detention under observation has been confined to persons who were regarded as suspicious by reason of their appearance, or symptoms, or the dirty condition of their clothes or effects. It has extended occasionally to persons who could not be easily traced and who could not be relied upon to give notice of the occurrence of plague among them, and to emigrants and persons of the coolie class travelling in large bodies. Since the publication of

the Venice Conference, most of the persons detained at Khana on the grounds detailed above have been kept under observation for a period of ten days reckoned from the date on which they started from an infected area. Inquiry was accordingly made in paragraph 4 of Mr. Oldham's letter, whether this precaution was enforced in other provinces. It was stated, however, in somewhat too general terms, and should have referred to "all *suspected* travellers," and not to all travellers without exception or qualification.

9. I am to request that if the Government of India approve of the draft rule relating to segregation, and of the general policy on which the remaining rules are explained in this letter, permission to publish the entire regulation may be communicated by telegram. I am to add that if necessity should arise the Lieutenant-Governor will issue them without waiting for the orders of the Government of India.

Hardwar.

No. 4. NOTIFICATION TEMPORARILY FORBIDDING THE SALE OF RAILWAY TICKETS TO HARDWAR AND NEIGHBOURING STATIONS.

Government of India, Home Department Notification No. 1518, dated the 18th May 1897.

Whereas the Governor General in Council is satisfied that there is danger of an outbreak of plague if persons assemble at Hardwar to attend fairs in the present month of May and the ensuing month of June;

In exercise of the powers conferred by section 2, sub-section (1), of the Epidemic Diseases Act (III of 1897), the Governor General in Council is pleased to direct that no tickets to travel by railway to Lakhsar, Patri, Jawalapur, and Hardwar shall be sold from the 24th day of May 1897 to the 12th day of June 1897.

No. 5. REGULATIONS PRESCRIBED BY THE GOVERNMENT OF THE NORTH-WESTERN PROVINCES AND OUDH FOR DEALING WITH PLAGUE AT HARDWAR.

Dated the 1st May 1897.

It having been ascertained that bubonic plague exists in Hardwar, the following measures are prescribed under the Epidemic Diseases Act (III of 1897) for the purpose of eradicating it. These rules shall

remain in force until the town is declared to be free from infection. They are supplementary to those issued with*Notification No. $\frac{212}{\text{XVI}-404\text{-B.}}$, dated 26th March 1897, and apply—

- (1) to the infected areas;
- (2) to visitors and pilgrims to Hardwar coming from infected areas.

I.—Measures concerning the Infected Areas.

1. The infected areas shall be placed in quarantine.
2. The inhabitants of the specially infected block adjacent to Ramghat shall remove to the camp established at Chauk Ram Jas on the Jawalapur road. Any person wishing to leave the camp shall, before leaving, obtain a written permission to do so from the Health Officer or Magistrate. Information of the departure of such persons shall be sent to the Magistrates of districts to which they are proceeding. Provision for watch and ward of the evacuated quarter and for the custody of the property of persons who have removed from it shall be made in accordance with rule 39 of Notification No. $\frac{212}{\text{XVI}-404\text{-B.}}$ of the 26th March 1897.

10. The provisions of rule 31 (2) of the rules published in Notification No. ²¹²~~XVI-404-B~~, dated 26th March 1897, shall until further notice apply to *all* deaths occurring in the Hardwar Municipality:—

"Rule 31 (2).—The dead body of a person who has died of bubonic plague shall not be removed from the house in which the death occurred until after the expiry of six hours from the time a notice of such intended removal shall have been delivered at the nearest police station by, or on behalf of the, friends of the deceased or of the owners or occupiers of the house, unless the Health Officer or other sanitary or executive authority has permitted earlier removal."

II.—Measures regarding Visitors and Pilgrims coming to Hardwar from Infected Areas.

II.—All pilgrims and visitors from the Bombay Presidency and Sind, or other place infected with plague, coming to Hardwar by rail or road, shall reside in the camp at Hardwar provided for the purpose, where provision has been made for their accommodation. They shall be permitted during the day to visit the towns, shrines and bathing *ghats*, but must cook their food and sleep in the camp at night. Such visitors shall be liable to medical inspection from time to time.

Khandraoni.

No. 6. REPORT BY SURGEON-LIEUTENANT-COLONEL CROFTS ON
THE OUTBREAK OF PLAGUE IN KHANDRAONI VILLAGE,
GWAJIOR STATE.

Gwalior, the 8th May 1897.

1. Under instructions from H. H. the Maharajah Scindia I left Gwalior on the 17th of March and proceeded to Khandraoni village, arriving there on the 18th, to enquire into a reported outbreak of bubonic plague. The orders received.

2. Khandraoni is a village situated in the Karera Tehsil of the Chanderi Subah, distant from Jhansi, Dattia, Dinara, and Karera, twenty, ten, seven and twelve miles, respectively. Description of Khandraoni village.

3. The population according to the last yearly census taken in July 1896 was 558 (187 men, 157 women, and 214 children), of which only five were Mahomedans, the remainder being Hindus, principally Brahmins.

4. The total area of the village lands is 2,599 bighas, 3 biswas. The area under cultivation in the current year is 940 bighas, the

average cultivated area in normal years being 1,006 bighas, and the revenue demand for the whole year being Rs. 1,374-1-0, Imperial coin.

5. On the north and west the village boundary runs with that of the villages of Rao Mou and Ata of the Dattia State, while to the south and east lie the Gwalior villages of Panoha and Belloni.

6. On my arrival, on the 18th of March, I examined all the sick in the village, and the signs and symptoms present, together with the epidemic nature of the outbreak and its history, left no doubt as to the disease being bubonic plague.

7. From enquiries made from the Patwari and Lambardar of the village, it appears that, for some years past, several of the inhabitants of Khandraoni have been in the habit of going to Bombay and taking service there, re-visiting their village at intervals; and that amongst these were two Brahmins, Bindraban and Khoobi, the former being one of the Lambardars of the villages.

8. These men came straight from Bombay to Khandraoni, arriving there on the 9th of January last (three days before Makar Sankrant in the month of *Poos*). On leaving Bombay Bindraban was suffering from fever and Khoobi attended him while on the way, bringing him to Jhansi by rail, and from there, in a country cart, to Khandraoni, where he died five days after his arrival. Two days after Bindraban's death Khoobi fell ill and died in three days, and about a week after his death a native *hakim* of the village, named Nazar Mahomed, who had been treating Bindraban and Khoobi, was attacked with fever and died; and at the same time another native *hakim*, named Gopi, who had come from Karera to treat Nazar Mahomed, also succumbed to the disease. The plague then gradually spread amongst the inhabitants of the village, and up to the date of my arrival there had been 59 seizures, of which 47 had proved fatal.

9. His Highness the Maharajah Scindia's instructions were that in the event of the plague being present every means should be employed—

- (1) to stamp out the disease in the village itself;
- (2) to prevent its spread to any other part of the State;
- (3) to treat the sick; and
- (4) to interfere as little as possible with the harvesting of the crops then in the ground.

10. Being satisfied that the disease was bubonic plague, the following principles were accepted as a basis on which measures

History of the outbreak.

Instructions received from H. H. the Maharajah.

The principles on which the

should be taken to carry out the above instructions to a successful conclusion :— measures taken were based,

- (a) That the plague was due to a specific microbe.
- (b) That this microbe could be carried by the excreta of persons suffering from plague and by clothing, wooden and earthen articles of all descriptions and by food of all kinds, cooked or uncooked.
- (c) That the microbe once imported by any of the above agencies into a house, where conditions obtained which were favourable to its development, not alone established itself in the floor, walls and roof of that house, but also in or on every article which that house contained.
- (d) That the conditions favourable to the development of the microbe were insanitary conditions of all kinds, especially dirt, overcrowding and the absence of thorough ventilation and light.
- (e) That the microbe could not establish itself unless the above conditions were present, and that it was impossible for it to exist for more than a few days in any place which was free from insanitary conditions and exposed to the direct rays of the sun, and that very high artificial heat rendered it inert.

11. For the purpose of clearness in this report the following measures based on the above principles are recorded, not in the sequence of their being given effect to, but in regard to the objects held in view, many of the measures being carried out simultaneously :—

- (a) An order was sent to the Officer Commanding the Karera Cantonment to march at once to Khandraoni with four companies of infantry and hospital establishment and equipment. The Tehsildar of Karera was also ordered to come to Khandraoni and arrange for such supplies as might be necessary for the troops and villagers.
- (b) In the cantment a nominal roll was made of all the inhabitants of the village, and it was found that the total number present was 435.
- (c) These were each examined and were divided for the purposes of segregation into four classes, *viz.* :—
Class I.—Those families who were perfectly healthy and amongst whom no case of plague or fever of any kind had occurred since the 9th of January (it was thought advisable to treat any case of fever as coming under the head of plague, as it was impossible from questioning the villagers

themselves to distinguish, with any certainty, between so-called fever and plague).

Class II.—Those families who were in good health, but amongst whom cases of plague and fever had occurred since 9th of January.

Class III.—Those families amongst whom there were cases convalescent from plague or fever.

Class IV.—Those families, some of whose members were then suffering with plague or fever.

vacuation of
village.

12. On the 19th of March four companies of the 6th Infantry having arrived from Karera, the inhabitants were ordered to go to their houses and remain there. Sentries were then posted on all the infected houses (*i.e.*, of classes II, III and IV) as well as those of class I in their immediate vicinity, and strict orders were issued to prevent any persons entering or leaving those houses or taking any article therefrom.

13. The remainder of the inhabitants (*i.e.*, class I, with the exception of those mentioned in paragraph 12) were then turned out of the village and surrounded by a cordon of sentries. This portion of the population were allowed to take any of their property which they wanted with them.

14. Classes II, III and IV as well as those of class I living in their immediate vicinity were then successively taken out of the village and segregated one from another by a cordon of sentries, those of class I hitherto detained being allowed to join the others of the same class.

15. These classes and those of class I above referred to were not allowed to take anything out of their houses, except the clothes they were wearing, as much bedding as was absolutely necessary for their protection from the climate, their money, ornaments and metal cooking utensils.

16. In carrying out this measure I took the precaution of visiting each house in turn, and saw that each family were placed in charge of an escort and conducted straight to the place appointed for their segregation, and that the order regarding the removal of any article other than those above mentioned was strictly adhered to.

17. The village having been evacuated, sentries were posted all round with strict orders to prevent any one from entering the village.

18. The following were the arrangements for feeding classes II, III and IV:—

Arrangements
for food-supply.

(a) Two Bunniahs were engaged from a neighbouring village, where it was ascertained that no plague was present, and

the necessary supplies were also brought from the same source.

- (b) Both Bunniah and supplies were placed under a guard, orders being given not to allow any of the villagers to come in contact with them, nor to allow the latter to mix with the inhabitants of the village.
- (c) The amount of grain, etc., necessary for each individual family was calculated and supplied once a day under the following arrangements.
- (d) The daily supplies were taken by a Bunniah under escort to the boundary of the segregation camp, where one member of each family was deputed to receive them. The supplies were then weighed and banded over, care being taken that neither the Bunniah nor his scales came in contact with the segregated inhabitants, the Bunniah was then marched back to the place allotted for supplies and again placed under the Commissariat Guard.

19. Arrangements were also made for the supply of *chapper* Arrangements for hutting, et:. huts, *charpays*, straw and blankets for hospital, and for the old and weakly portion of the community, while grinding stones for the portion of class I who were not allowed to bring these articles from the village were also supplied as well as new earthen vessels to all who required them. It may here be mentioned that there was little or no grain brought out of the villages, as those who were allowed to bring any had little or none to bring and were beginning to live on the current year's produce, some of which was then on the threshing-floors.

20. As the segregation camps were all situated along the banks Water-supply. of a small river which was the usual source of water-supply, no difficulty regarding this was experienced, but care was taken that the segregation camp of the healthy portion of the inhabitants was highest up stream, while that of the hospital was lowest.

21. The owners of the infected houses as well as of those of the Compensation lists. houses in their immediate vicinity were called upon to give lists of property therein with a view to subsequent compensation; these were made out in my presence by the Patwari, and having been initialled by me, were handed over to the owners. The majority of the lists contained property of little value, but in two or three instances where the amount of grain, goor and gbee, etc., seems suspiciously large, the owner was taken to his house and made to show where the amount which he had written down was, and it was invariably found that only about half the stated amount was present. The necessary correction was made in the list and owner was again marched back to segregation camp under escort.

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infected houses
burnt.

22. With the help of a few policemen and chuprassies hay and other inflammable materials were then placed in the infected houses and those in their immediate vicinity, which were then set fire to and destroyed under my personal supervision; care being taken that nothing that could be burnt escaped. A short time after the houses were set fire to it began to blow half a gale, and a good many more houses than was intended were destroyed by fire, but this may be looked upon as an error of Providence, if such can be, on the right side. Every heap of refuse and litter in and round the village was also set fire to and burned as far as this was possible. The sentries placed over the infected houses were then withdrawn, the cordon round the village still remaining.

23. Every morning and evening a bugler blew "The assembly" for roll call and inspection in the several camps, any one showing signs of disease or debility being put apart for further examination after inspection.

24. It having been found that some of the people obtained their livelihood by daily labour and begging, these had to be put on free rations at the expense of the State, their ordinary means of livelihood being interfered with by their segregation in camp. Every effort was made to convince the people that the measures taken were entirely for their own benefit and with a view to stop the mortality amongst them. Compensation was promised for the unavoidable damage to their property and crops; they were made as comfortable as possible under the circumstances. Small luxuries, such as tobacco, etc., was given to them, they were urged and encouraged to scatter themselves as much as possible, to wash themselves and their clothing, and to keep the ground in their vicinity clean. It was, moreover, pointed out that it was absolutely necessary that the camp rules should be carried out in their entirety for the purpose of obtaining the full benefit for which they were formulated, and they were made to understand very clearly that, if necessary, these rules would be carried out by force.

25. The sentries were prohibited from entering the segregation camp, and were warned not to let any of the villagers approach within fifteen yards of their post.

Measures taken
to prevent the
spread of the
disease.

26. The measures taken to prevent the plague from spreading to other parts of the State were as follows:—

(a) The whole of the staff of civil officials, Suba, Tehsildar, chuprassies, etc., were removed from the vicinity of the village and located near the village Belloni, nobody, except the medical staff and the officers and sepoy engaged on

segregation duty, being allowed to remain within the boundary limits of Khandraoni village.

(b) Nobody, without regard to his rank, business or occupation, was permitted to enter or leave the segregation camps or cross the village boundary without an order from me and without being accompanied by one of the orderly Havildars detailed for this duty at my camp, and orders were issued to the sentries that under no pretext whatsoever was this rule to be broken, and to make this further certain, entrance to or exit from village boundary limits on segregation camps was absolutely prohibited, except at one place appointed for this purpose. Considerable inconvenience no doubt arose from this rule, but it was early recognised that the strict observance of this rule was of the most vital importance, and it is satisfactory to be able to state that, with one exception which fortunately was followed by no ill-result, but of which due notice was taken, no instance of this rule being broken came to my knowledge, and that the Officers Commanding the Troops, Sir-Suba, and other officials set a good example by their strict adherence to this rule.

(c) A list containing the names of every village within a radius of ten miles from Khandraoni was made out, these villages were divided into circles of four or five villages, each according to the distance between them, and each circle was placed in charge of a policeman whose duty it was to collect daily reports from the Patwaris of each village. The reports to contain the following information:—

I.—Whether there were any sick in the village, and if so, the nature of their sickness.

II.—Whether any one had arrived or left the village since last report, and if so, where they had come from or gone to.

(d) On comparing the census of Khandraoni, taken in July 1896, with the number of people present when the roll was made out, it was seen that there was a considerable decrease in the population, even allowing for the number who had died of plague and other cause during the preceding eight months. A return was therefore called for from all villages within ten miles radius showing if any one from Khandraoni had arrived in the village since the beginning of January, and if so, whether they were

still there, a list of their names with dates of arrival being also asked for, enquiry was also made from the inhabitants of Khandraoni itself as to the whereabouts of any one who had left the village since the arrival of the Brahmins, Bindrabai and Khoobi, from Bombay.

- (e) Orders were issued that if there were any persons who had come from Bombay since July 1896, or from Khandraoni since the 1st of January 1897, such persons were to be segregated outside the village until inspected by the medical officer.
- (f) A list was called for giving the names of any of the inhabitants of villages who might then be in Bombay, and orders were issued that their relations in the village should write and tell them that they were prohibited from coming back to the State during the continuance of the plague at Bombay.
- (g) Orders were issued to the inhabitants of all villages within ten miles round that no person from Khandraoni or Bombay was to be admitted into the village; moreover, they themselves were prohibited from coming to Khandraoni, and they were also told that, except for any very urgent reasons, they were to remain at their own village for at least a month.
- (h) The villages all round were inspected, those in which there were people who had come from Khandraoni and Bombay being taken first, and no case of plague was found to be present amongst them. False alarms were at first of frequent occurrence, as the daily reports contained many cases, whose symptoms, roughly described by the Patwaris, might be those of plague; these were inspected without delay, and though doing so entailed many long rides, still there was satisfactory compensation, inasmuch as none of these cases thus inspected proved to be plague.
- (i) Supplies for the sepoys were brought from outside into their camp, which was pitched about a mile from the villages under escort. The carts were unloaded, and the cart and cartmen at once conducted outside village limits. The supplies for segregation camp were in a similar manner brought to the places appointed for the Bunniahhs near which no villager was allowed to approach.

27. The arrangements for the treatment of the sick were as follows :—

Arrangements
for treatment of
sick.

(a) The Hospital Assistant and medicines were ordered with the troops from Karera.

(b) *Chapper* huts were provided for each patient, the huts being placed about 20 yards from one another, clean straw being placed on the ground, separate *chappers* were made for the other members of the patient's family who were allowed to attend upon their own sick, but were discouraged from coming in any number to the sick huts.

(c) *Charpoy*s with blankets, etc., were supplied, suitable food was cooked for all patients either by a member of their own family or by a Brahman who was appointed as a cook or water-carrier.

28. There being few patients in hospital, nobody, except the Medical Officer, Assistant Medical Officer and Hospital Assistant, were allowed to enter the segregation camps.

29. A *mekhtar* was entertained for the hospital segregation camp, and was not allowed to go outside it until it was finally broken up.

30. When a patient died the body was cremated, all the patient's clothes, *charpoy*, hut, etc., being burnt, compensation for clothes being paid to the relatives.

31. The mode of supplying the hospital camp with food has already been noted.

32. There was at first considerable difficulty in carrying out the instruction issued regarding non-interference with the harvesting of the crops, as on the arrival of the four companies of infantry from Karera it was found that the total strength amounted to only 204 sepoy's, and it was impossible to cover the amount of ground within village limits with the number of sentries at my disposal. I therefore telegraphed to Gwalior to send four more companies of infantry from Lashkar, and in the meantime I had perforce to keep the inhabitants in segregation camp of a necessarily confined area; H. H. the Maharajah's promptness in acceding to my request and in despatching without delay four companies of the 12th Infantry of a strength of 232 sepoy's placed me in a position to carry out H. H.'s instructions regarding the crops.

Non-inter-
ference with
harvest.

33. The line of sentries round the segregation camp were thrown back to the limits of the village boundary, and the people of class I were then at liberty to harvest their crops at their leisure, with the exception of those lying within segregation camps of classes II, III and IV; and after ten days in segregation camp, those of class II, no case of plague having occurred amongst them, were also allowed to

all the cases that recovered general debility was very marked feature. In one or two instances the wounds caused by opening the bubos, healed very slowly, and in one patient, who was convalescent for some time and quite free from fever, a small swelling appeared on the forearm, unaccompanied with pain or inflammation, but over which distinct fluctuation was present, it soon, however, disappeared by resolution. In another case the only sign present was a bubo in the groin, no fever or constitutional disturbance of any kind being present, and the patient was otherwise healthy and well nourished; this I would classify as "*Pestis ambulans*" (even at the risk of being considered Irish), the patient being a child of four months old. With regard to the statement that, though rats are very susceptible to plague, their enemy, cats, are immune, it may be interesting to note that a dead cat was found in one of the infected houses, but the fact that it died of plague was not verified by microscopical examination.

40. The loss for which the villagers have to be compensated is classified as follows:—

I.—Damage done to rabi crops.

II.—Re-roofing the infected houses which were burnt down.

III.—Loss of property which was burnt in the houses.

41. In order to explain fully the process of calculating compensation and to make the figures clear, the different classes of compensation above enumerated are separately dealt with and classified statements of same are appended to this report.

42. The area cultivated with rabi was $250\frac{9}{10}$ bighas, composed of 290 fields of 101 cultivators, out of which $124\frac{3}{10}$ bighas were held by the zamindars of the village as their *Khud Kasht*, and $126\frac{6}{10}$ bighas were cultivated by tenants on cash or grain rent.

43. The crop was generally barley and masur, mixed gram and wheat being sown in a few fields. Nearly two-thirds of area sown with rabi crops were irrigated, the remaining one-third being unirrigated: and on this, as the soil is mostly pondwa and inferior kanker, the crop was naturally bad, but on the irrigated portion an average outturn of five maunds per bigha was estimated.

44. When the plague segregation camp was formed the crops were ripe and had been partly cut and removed to the threshing-floors, the remainder of the crops then in the ground being afterwards cut by the owners who had access to their fields, those crops belonging to people in hospital segregation camp being cut through the agency of labours employed by the State for this purpose.

45. In this way the damage done to the standing crops was not great, and was due altogether to the cattle straying into the fields.

Compensation payable to the villagers,

Damage to Rabi crop.

This damage occurred owing to the small strength of the troops available for sentry duty when the camp was first formed, rendering it impossible to allow the villagers access to their fields and so prevent damage from cattle; neither was it possible, for sanitary reasons, to keep the cattle within segregation camp, as they numbered 1,500, nor could arrangements be made for their food. This state of things, however, only lasted for a couple of days, until the arrival of the four companies of infantry from Lashkar.

46. There were some instances, which will be enumerated hereafter, in which the people were not allowed to cut their crops at all, and they were completely damaged, compensation in full being allowed.

47. As all the crops had been cut before the compensation list was made out, and therefore the damage done could not be estimated from an inspection of the standing crops, the following course was taken to estimate the loss incurred. The average outturn of the village was found by selecting seven khalian of different kinds of grain and belonging to different known fields both irrigated and un-irrigated, and having them threshed, cleaned and weighed; from this an estimate was formed of the produce of each field. Enquiry was then made as to the average outturn of five adjoining villages having similar advantages and similar soil as Khandraoni, and also the average outturn of the perganna, and comparing the existing produce of the Khandraoni fields, with the average outturn of the adjoining villages and of the whole of the perganna, an estimate was formed of the loss of grain in each field and its equivalent in rupees was calculated at the market rate obtaining in the village.

48. The instances in which the crops were completely damaged, and in which it is proposed to give compensation for the full value of the crop according to the average outturn of the village, are as follows:—

- (a) Nos. 5 and 6, area $4\frac{1}{6}$ bighas, cultivated by Murli Dhar, Brahmin, who was not allowed to cut his crops, because the fields were situated inside the hospital segregation camp, where he had no admission.
- (b) Barley store of Madho Singh, son of Bhansi, the produce of No. $\frac{235}{1}$ and 514, area $2\frac{16}{30}$ bighas which was burnt as infected grain.
- (c) Mohwa crop of Dhalip Singh, Lambardar, who, being in hospital, was not allowed to gather it.

49. The yearly revenue demand on the village is Rs. 1,374-1-0, out of which the zamindars have only paid a four-anna instalment

before the plague outbreak, and the remainder Rs. 1,039-15-0 is in arrears ; and in order to relieve, as far as possible, the zamindars from the revenue demand, it is proposed to deduct the uncollected rents of tenants' lands from the compensation payable to them for the damage done to their crops, and to credit it to the revenue due from the zamindars ; having done this, so much of the compensation payable to the zamindars for their *Khud Kasht* sufficient to satisfy in full the ratable revenue demand of each individual co-sharer, according to the figures obtained from the Patwari, is also credited ; or where a full adjustment of the revenue demand was impossible, on account of the compensation falling short of the revenue demand, the whole of the compensation payable was taken in part payment. In this way Rs. 768-2-0, Imperial coin, can be realized out of the revenue demand payable to the State without any burden on the pockets of the zamindars, who, in addition to being considerably relieved of the revenue demand, have the advantage of appropriating all existing grain and getting the surplus compensation.

50. The arrears of revenue then remaining uncollected would be Rs. 271-13-0, Imperial coin, due from the co-sharers who had no *Khud Kasht* of rabi, or whose compensation for *Khud Kasht* fell short of the revenue demand ; and having regard to the disastrous effects of the plague outbreak, it is recommended that this amount should be allowed to stand over for two years, after which it could be collected by easy instalments.

51. The classified statement A, appended to this report, shows the value of the loss in the average outturn of the crops of each man, the amount of revenue realized from him, and the compensation payable, if any, after deducting the revenue demand. A summary of this statement is as follows :—

			Rs.	A.	P.
Value of crops in Raja Shahi coin	...	...	1,100	9	9
Deduct revenue in do.	...	...	834	11	9
<hr/>					
Compensation to be paid under this head after deducting revenue	...	...	265	14	0

52. Statement B, appended to this report, shows the distribution of the arrears of revenue over the four Pattas into which the village lands are divided, and the account within the Pattas will be made by the Patwari afterwards, having regard to the arrears which were originally due from each of the co-sharers and to the amount realized out of the compensation of his *Khud Kasht* and his tenants' lands by the method here proposed.

53. This class of compensation refers only to persons whose houses being infected, or contagious to those infected, were burnt. Compensation for houses.

54. In order to make an estimate of the cost of re-roofing the houses, measurements of each roof were taken, and the amount of wood required for this purpose and also for doors, etc., was noted; an estimate was then made of the different kinds of materials required for each roof, and the cost of re-roofing calculated at the local rate, and adding to this the value of the doors and the cost of labour, the amount of compensation payable for each house separately was obtained. Most of the houses had tile roofing, the average cost of which at the village rate is Re 0-1-7 per square yard, thatched roofing costing half as much more. Some of the houses had masonry roofs; the cost of these has been calculated separately at local rates. Statement C, appended to this report, shows detail of materials required and the compensation payable for each house.

55. Compensation under this head is payable only to those whose houses were burnt. Lists of property in those houses which were to be burnt were made out beforehand, but it was difficult to calculate the compensation due to those villagers whose houses were accidentally burnt on account of the gale which sprung up after the infected houses were set fire to; but as, before any of the houses were burnt, the people were given every opportunity of removing their cash and gold and silver ornaments and metal utensils, and most of those were removed by them or were made over to them from time to time as they were found in their houses, the only articles which were destroyed consisted chiefly of food grains, gur, ghee and clothing. The list given to the villagers in the first instance was called for, and all articles which had been removed by, or handed over to, them were struck out of the lists, and compensation for the remaining articles was then calculated. The lists which were filed by the owners of those houses which were accidentally burnt, after this had occurred, were carefully gone through. The receptacles in which they said their grain, etc., was stored were inspected, their capacity ascertained, and an estimate thus formed of the compensation due. Compensation for loss of property burnt in the houses.

56. Tabular statement D shows the compensation payable under the different heads, and, at a glance, how much each man is to get for the total loss suffered by him.

57. The amount is calculated in Raja Shahi rupees, as that is the coin current in the village.

I cannot close the report without expressing my thanks to the officials who were detailed for duty with me at Khandraoni. The Assistant Medical Officer, Dr. Wagle, L. R. C. P. and S., Edinburgh, Conclusion.

rendered me invaluable assistance and spared neither time nor trouble in carrying out the duties entrusted to him. The Sir-Suba of Esagarh made excellent arrangements for supplies, etc., for the camp, until he was obliged to leave by sickness brought on by the extreme heat, after which his work was well carried out by Suba Sahib of Chanderi. I cannot too highly praise the work of Moonshi Jugalkishore to whom the cleaning up the village was for the most part entrusted, as well as that of estimating the amount of compensation payable to the villagers for property destroyed and crops damaged. His report* is incorporated in this, and having gone over the figures, I am quite satisfied that his estimates are correct and equitable in every respect. The conduct of the troops (4 companies of the 6th and 4 companies of 10th Infantry) engaged on segregation duty was all that could be desired, and their strict obedience to orders contributed in no small degree to the result obtained, my thanks being especially due to Captain Eseri Singh, Commanding the 10th Infantry. Inspector of Police, Gayapershad, performed his duties to my entire satisfaction,

Patwari Thakoorparshad of
Khandraoni.

Police Sepoy Ismail of
Jigni.

Do. late Mohamed of
Karera.

and the subordinate officials mentioned in margin also worked well. I trust the Darbar will recognize the work done by the above officials, the due performance of which, together with the very full authority given to me by H. H. the Maharajah, enabled me to carry out H. H.'s instructions to what, I trust, will be considered a successful conclusion.

* Not printed.

APPENDIX VIII.

MEASURES TO PREVENT THE SPREAD OF INFECTION BY LAND.

PAPER Nos.	CONTENTS.	PAGES.
1—23.	Correspondence regarding Land quarantine .	35—60
24—36.	Latter correspondence regarding the stoppage of third class Railway Traffic	60—65
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MEASURES TO PREVENT THE SPREAD OF INFECTION BY LAND—*contd.*

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APPENDIX VIII.

MEASURES TO PREVENT THE SPREAD OF INFECTION BY LAND.

Correspondence regarding Land Quarantine.

No. 1.

No. 276, dated Calcutta, the 13th February 1897.

From—W. BANKS GWYTHER, Esq., Secretary to the Medical Board,

To—The Secretary to the Government of Bengal, Municipal Department.

I am directed by the Medical Board to say that the following telegram has to-day been received from Bombay:—

“Your yesterday telegram. Persons determined on pilgrimage will proceed Nassick Quarantine Camp, remain probably ten days, all others allowed going homes. Bengalis sent Howrah, Calcutta Police daily advised.”

It appears from this telegram that only those pilgrims who state they are determined to go on pilgrimage are detained under observation at Nassick; while those who say that they wish to return to their homes are allowed to do so. In practice this obviously means that pilgrims who say they are not going to Mecca are able to go wherever they choose and may therefore spread infection indefinitely. In view of the great danger which the arrangements of the Bombay Government involve and the strong public feeling on the subject in Calcutta, the Board desire to urge very strongly that not only pilgrims but all persons leaving Bombay, Karachi or other infected places should be detained for 10 days under observation whatever statements they may make as to their intentions. We are aware that this proposal is a drastic one, but we submit that it is justified by the fact that Calcutta is now the only outlet for the trade of Northern India.

No. 2.

No. 1065-Medical, dated Calcutta, the 25th February 1897.

From—H. H. RISLEY, Esq., C.I.E., Secretary to the Government of Bengal, Municipal (Medical) Department,

To—The Secretary to the Government of India, Home Department.

I am directed to submit, for the consideration and orders of the Government of India, the accompanying copy of a Resolution adopted unanimously by the Medical Board, Calcutta, indicating certain

measures which might be taken with the object of restricting passenger traffic between areas in the Bombay Presidency infected with plague and Bengal. With reference to this resolution, I am to say that the Lieutenant-Governor sees great difficulty in enforcing such a system as that proposed, and, in the case of European passengers and their baggage, the precautions suggested are probably superfluous. It is, however, undoubtedly invidious to make race distinctions. At the same time there is no disputing the fact that infection may very easily be carried in the bundles and baggage of native passengers who may themselves satisfy the medical inspectors. The Lieutenant-Governor would be inclined himself to advocate the detention at convenient stations, just outside infected areas, of all passengers therefrom for a period of 24 hours in order to enable careful medical inspection to be made and baggage to be disinfected. Mail passengers from Europe should be run through from the Docks without stopping in Bombay.

Resolution adopted by the Medical Board at a Meeting held on the 22nd February 1897.

"We think there is a strong feeling in Calcutta that, if possible, some measures should be taken with the object of restricting passenger traffic between areas in the Bombay Presidency infected with plague and Bengal. In deference to this feeling we suggest that the Bombay Government should be asked to consider whether—

- (a) *Either* a land quarantine for all passengers should be established at a point or points as close as possible to the infected areas.
- (b) *Or* third class passenger traffic should be suspended over a certain section of the lines communicating with infected places, *and*
- (c) passengers' baggage should be disinfected at quarantine stations.

In the event of (a) being accepted, special arrangements should be made for passengers in transit from Europe, and they and their baggage should be passed through the infected area without stopping."

Telegram No. 779-A., dated Calcutta, the 28th February 1897.

No. 3.

From—The Secretary to the Government of India, Home Department,

To—The Secretary to the Government of Bombay, General Department.

Government of India are advised that considerable danger of infection exists from clothes and bundles carried by third class passengers

from infected area. They could not issue a notification prescribing disinfection of such property when belonging to third class passengers only, but it would be possible perhaps to issue notification prescribing disinfection except when medical officer thinks fit to declare it unnecessary. Government of India are advised that efficient disinfection could be effected by apparatus capable of producing steam at temperature of 24° and that articles exposed to steam at this temperature could be sterilized in an hour or less. Failing such apparatus caldrons could be set up and clothing boiled in them for similar period, or caldrons could be used as subsidiary to steam apparatus. Government of India think that, if arrangements for disinfection can be made, it would be desirable to arrange for it at Anand, Bhusawal, Dhond and Hyderabad, or somewhere in neighbourhood, but would be glad to receive as soon as possible advice of Government of Bombay as to whether effective measures can be taken for disinfection, and, if so, at what places. In case this is feasible, would Bombay Government recommend any special exemption, and, if so, of what nature for baggage of travellers from Europe who leave Bombay at once on arrival of steamer?

Madras Government have asked Government of India to prohibit importation by railway or road of articles, importation of which by sea is prohibited by Home Department Notification No. 513. Government of India would be glad to learn views of Bombay Government as to this.

No. 4.

Telegram No. 658-P., dated the 4th March 1897.

From—The Secretary to the Government of Bombay, General Department,
To—The Secretary to the Government of India, Home Department.

Your secret telegram of the 28th February. Disinfecting clothing and baggage would be useful accompaniment of quarantine in this Presidency or suspension of third class railway passengers traffic in neighbourhood of frontier, but unless Government of India consider these necessary usefulness of former incommensurate with difficulty. Luggage in bags, bundles of passengers, not perhaps more in need of disinfection than clothes worn, but difficulty in the way of stripping would be large. In absence of road and rail quarantine and closeness of numerous railway stations near disinfecting stations proposed measures could be evaded by passengers alighting at previous stations and after land journey re-embarking at subsequent stations. Disinfection stores not speedily obtainable. Boiling would involve subsequent classing and sorting clothes. Trains would be delayed for hours. In view of possibility of incubation for nine days, infection by personal intercourse cannot be avoided except by quarantine. It

indigenous cases of plague at Sukkur, and Government of India desire to give Punjab Government every possible assistance in keeping disease out of province. But there are in their opinion overwhelming objections to land quarantine. They observe that Sir Dennis Fitzpatrick did not expect more than that it would be fairly effective and all experience including that at Sukkur recently proves that land quarantine cannot be made effective while it must give opportunities for oppression and extortion and may give rise to serious outbreaks of disease at quarantine stations. At Dresden Conference of 1893, majority of European powers condemned and quarantines and policy of Secretary of State and British Government has continuously been opposed to quarantine. Delegates of British Government at Venice Conference have been instructed to press for principles of Dresden Conference and apart from objections above stated it would be impolitic at present time to give opportunity to European powers to urge greater restrictions on Indian trade by abandoning principle that quarantine does no good. For these reasons Government of India are reluctantly compelled to refuse assent to establishment of land quarantine in Punjab against Sind. They think that widest discretion should be given to inspecting Medical Officer at Khanpur to stop any person who is at all suspicious whether by reason of his symptoms, appearance or dirty condition of his clothes or effects. The Lieutenant-Governor may also find it desirable to appoint other inspecting officers to inspect passengers proceeding by road or river and similar discretion should be given to any officers so appointed. By these measures and by making arrangements similar to those enjoined in Part I of North-Western Provinces Notification of 12th February last under Epidemic Diseases Act and by simultaneously carrying out thorough clearing of towns in Punjab, Government of India hope that it will be possible to prevent disease entering Punjab.

No. 996, dated Calcutta, the 17th March 1897.

No. 8.

From—The Secretary to the Government of India, Home Department,

To—The Secretary to the Government of Bengal, Financial Department.

I am directed to state, for the information of His Honour the Lieutenant-Governor, that the Government of India have recently taken into their careful consideration, in connection with certain suggestions made by the Governments of Bombay and the Punjab, the expediency of enforcing a system of land quarantine against the plague infected areas. The Government of Bombay suggested that the Government of India might endeavour to protect the rest of India by imposing quarantine against the Bombay Presidency or by temporarily suspending third class railway traffic altogether in certain places,

The Government of the Punjab suggested that quarantine should be established against Sind at some place within the southern portion of the Punjab, cordons being thrown out for a considerable distance at right angles to the railway and river.

2. After carefully considering these suggestions, the Government of India have decided that there are overwhelming objections to the imposition of land quarantine. All experience, including that of the recent attempt made by the Government of Bombay at Sukkur, proves that land quarantine cannot be made effective even on a small scale. It would be hopeless to endeavour to put in quarantine the whole of the Bombay Presidency or the large tracts which are infected with plague. The attempt to enforce land quarantine regulations would, besides being ineffective, give opportunities for oppression and extortion and might give rise to serious outbreaks of the disease at the quarantine stations.

3. The imposition of land quarantine is also opposed to the principles which Her Majesty's Government and the Government of India have been continuously urging in respect of quarantine generally and which were accepted by the Sanitary Conference held at Dresden in 1893 so far as land quarantine goes.

The delegates of Her Majesty's Government at the Conference now being held at Venice have been instructed to press for the recognition of the principles of the Dresden Conference. Apart then from the inherent objections to the adoption of land quarantine it would, even were it possible to hope that it might help to prevent the communication of plague from an infected to an uninfected area, be impolitic at the present time to give opportunity to the European Powers to urge for further restrictions against Indian trade on the ground that the Government of India had abandoned the principle of the inefficiency of quarantine.

4. The Government of India also consider that the suggestion that third class railway passenger traffic should be stopped is not one that can be adopted. It would make invidious distinctions between classes and would cause great inconvenience and hardship. It would also not be effective; it would offer no check to the spread of the disease otherwise than by railway and would not prevent the chance of infection being carried by persons choosing to take first or second class tickets.

5. It was determined at the Dresden Conference that medical intervention should be limited to an inspection of the travellers and to the case of the sick. It would then, in the opinion of the Government of India, be unjustifiable to detain passengers by railway merely

on the ground that they come from an area infected with plague. But in determining whether passengers should be detained or not the widest discretion should be exercised by inspecting officers and any person who is at all suspicious either by reason of his appearance, symptoms or the dirty condition of his clothes or effects should not be permitted to proceed without being placed under observation. The Government of India also think that measures similar to those prescribed in Part I of the Notification No. 58-XVI-404-B., issued by the Government of the North-Western Provinces and Oudh on 12th February last under the Epidemic Diseases Act, should be taken so as to secure a record of the arrival at their homes of all travellers from the infected area who are not, owing to their suspicious appearance, detained at the inspection station, and a prompt report of any suspected cases that may occur in the villages in which they live. In these measures and the vigorous cleansing of these towns lie, in the opinion of the Government of India, the most effective means of preventing the plague from entering a province.

Telegram No. 937-G., dated Abu, the 16th March 1897.

No. 9.

From—The Agent to the Governor-General, Rajputana,

To—The Secretary to the Government of India, Home Department.

I have telegraphed to Bombay :—*Begins.* No. 936-G. Plague is endemic at Palanpur. Experience shows that unless railway traffic is regulated plague spreads from station to station. Two men from Palanpur have been stopped with plague at Abu road and if this continues plague may become endemic there and extend into Rajputana. Palanpur people should I think be prevented from booking from Palanpur up country unless they have gone through quarantine at Palanpur. If His Excellency approves I shall be glad if this can be arranged. *Ends.*

Telegram No. 1090, dated Calcutta, the 25th March 1897.

No. 10.

From—The Secretary to the Government of India, Home Department,

To—The Agent to the Governor-General, Rajputana.

Your telegram No. 937-G., dated 16th. Plague at Palanpur. Government of India are opposed to establishment of absolute quarantine against plague infected places. All past experience shows that such quarantine is certain to be ineffective and it causes great inconvenience and hardship besides giving rise to opportunities of oppression and extortion. Government of Bombay have been requested to prevent all suspicious persons from booking for Palanpur and you should detain and keep under observation all suspicious persons

from Palanpur. Other persons from Palanpur should be watched after arrival. The class of persons who when they enter a town can neither be traced nor depended on to give information of plague amongst them should be treated as suspicious. So also should all persons who are suspicious by reason of their appearance, symptoms or the dirty condition of their clothes and effects.

No. II.

No. 1149-G., dated Abu, the 27th March 1897.

From—The Agent to the Governor General, Rajputana,

To—The Secretary to the Government of India, Home Department.

I have the honour to acknowledge the receipt of your telegram No. 1090, Sanitary, of the 25th instant. In my telegram No. 937-G., I did not mean to propose to establish absolute quarantine against Palanpur, but to stop booking from that station by requiring persons to go through quarantine before they were allowed to enter the train. My object was to check the rapid migration of persons from a plague-infected locality. The platform inspections which are carried out in Rajputana are most useful if the plague-infected area is distant and there is consequently time for plague symptoms to appear before the passenger arrives at the inspection station. Now that the plague is established at Palanpur, it is obvious that, if unrestricted traffic is allowed, there is a great risk that passengers who are infected with plague may pass undetected through our inspection stations. A report has just been received of a sepoy from Deesa being detained at Bandikui as a plague patient. Placing impediments in the way of railway travelling from Palanpur will not be an effective protection against plague, but measure will be useful. The 246 third class passengers who as I reported booked from Palanpur seem more likely to convey infection than a number of persons travelling slowly by road.

2. The order which the Government of Bombay have been requested to issue, namely, to prevent all suspicious persons from booking from Palanpur will, I submit, meet the object which I had in view, if that Government construe the expression "suspicious persons" in the manner indicated in your telegram. It would be an additional precaution if the booking of third class passengers to up country stations from stations near Palanpur were prohibited. If persons booking from Palanpur are subjected to close examination and are liable to be prevented from travelling, people will no doubt travel by road to stations above or below Palanpur and book from there. It would be in the public interests to prevent this; but even if it is not prevented, the restrictions on booking from Palanpur will be good as the road journey in the open air will tend to disinfect the travellers.

3. I had already before the receipt of your telegram issued orders regarding the detention of suspicious persons arriving from Palanpur and the neighbouring stations. By the instructions conveyed in your telegram I understand that suspicious persons from Palanpur who alight at a station are to be detained and not that all suspicious persons from Palanpur are to be removed from the train and detained. Of course those who are suspicious by reason of their showing symptoms of plague are removed from the trains; but I could not, except where a European Medical Officer is appointed, direct the removal of persons who are suspicious for the reasons mentioned in your telegram.

Telegram No. 1198, dated Simla, the 3rd April 1897.

No. 12.

From—The Secretary to the Government of India, Home Department,
To—The Secretary to the Government of Bombay, General Department.

My telegram No. 1089, dated 25th March. Preventive measures against spread of plague from Palanpur. Agent, Governor-General, Rajputana, represents that if persons booking from Palanpur are subjected to close examination and are liable to be prevented from travelling people will travel by road to stations above or below Palanpur and book from there. Government of India will be glad if Government of Bombay will take such precautionary measures as are possible to lessen danger of infection being carried in this way.

Telegram No. 1293, dated Simla, the 15th April 1897.

No. 13.

From—The Secretary to the Government of India, Home Department,
To—The Secretary to the Government of Bombay, General Department.

Continuation my telegram 1198, dated 3rd. Measures to prevent persons travelling from Palanpur to Rajputana evading inspection by taking road journey to station near Palanpur. Government of India would suggest persons leaving Palanpur by road might be examined and if found to be suspicious detained on leaving Palanpur and on arrival by road at neighbouring stations in manner prescribed in Rule 5 of Rules published in Bombay Government Notification No. 1728—1201-P., dated 29th March.

No. 1294, dated Simla, the 15th April 1897.

No. 14.

From—The Secretary to the Government of India, Home Department,
To—The Agent to the Governor-General, Rajputana.

I am directed to reply to your letter No. 1149-G., dated the 27th March 1897, regarding the measures taken to prevent the spread of plague from Palanpur into Rajputana.

2. I am to say that you are right in understanding that the instructions conveyed in my telegram No. 1090—Sanitary, dated the 25th March, were to the effect that all suspicious persons from Palanpur who alight at a station in Rajputana should be detained, and not that all suspicious persons from Palanpur, apart from those who are suspicious by reason of their showing symptoms of plague, should be removed from the train.

3. In paragraph 2 of your letter you allude to the danger of intending travellers eluding the observation at Palanpur Railway Station by making a road journey to a neighbouring station above or below Palanpur. To lessen this danger the Government of Bombay have been requested to examine and if necessary to detain suspicious persons leaving Palanpur by road at the time of leaving and on arrival at any neighbouring railway station in the manner prescribed in Rule No. 5 of the Rules published by the Government of Bombay in Notification No. 1728—1201-P., dated the 29th March 1897 (of which a copy is enclosed).

No. 15.

Telegram No. 975-P., dated Bombay, the 17th March 1897.

From—The Secretary to the Government of Bombay, General Department,

To—The Secretary to the Government of India, Home Department.

Your telegram 934, dated 12th instant. Suggestion as regards quarantine against this Presidency having been considered by the Government of India, this Government have nothing further to say on the point, but with regard to the second portion of your telegram this Government would venture to protest strongly against suggestion that quarantine should not be permitted in selected places. Villagers already in accordance with the custom of the country in dealing with cholera impose quarantine of their own accord against plague-infected villages in the Thana and Surat Districts. In some towns and places specially liable to infection limited quarantine has with good results so far been imposed by District Magistrates, Political Agents, etc. Quarantine, even if not thoroughly effective, checks large movements of people and persons flying from an area, where active remedial and disinfective operations are anticipated, will avoid going to a town where there is quarantine. Moving about should be prevented by all possible means. Quarantine need not be universal even when applied, but it is specially important to apply it to the class of people who when they enter a town can neither be traced nor depended on to give information of plague amongst them. Concealment of plague by such persons presents the greatest obstacles to suppressing an outbreak. Medical inspection though valuable does not detect cases that are

only incubating and as regards cleansing Bombay city experience shows that it cannot check plague unless accompanied by detection of all new cases for which large staff and organisation are required than can be supplied in most mufassal towns whose only hope of protection therefore lies in quarantine. As regards third point in your telegram there is no intention of stopping third class railway traffic generally and this will not be done in any particular case without most cogent reasons. As respects disinfection of clothing of passengers suggested by Government of India, this Government will endeavour to arrange.

Telegram No. 1089, dated Calcutta, the 25th March 1897.

No. 16.

From—The Secretary to the Government of India, Home Department,

To—The Secretary to the Government of Bombay, General Department.

Your telegram No. 975-P., dated 17th. Land Quarantine. Government of India adhere to opinion that absolute quarantine at one place, against another, should not be established. They agree, however, that all suspicious persons should be stopped and placed under observation, and class of persons mentioned in your telegram who, when they enter a town, can neither be traced nor depended on to give information of plague amongst them, should be treated as suspicious. Similar remarks apply to third class railway traffic. Only suspicious persons should be prevented from travelling or detained, but widest latitude should be given to inspecting medical and other officers in determining whether an individual is suspicious or not.

With regard to particular case of Palanpur about which Agent to Governor-General has telegraphed to you, no suspicious person should be allowed to book from Palanpur, but absolute quarantine should not be established against Palanpur. Government of India will be glad to be kept informed of condition of affairs at Palanpur.

No. 1167, dated Calcutta, the 29th March 1897.

No. 17.

From—The Secretary to the Government of India, Home Department,

To—The Secretary to the Government of Bombay, General Department.

I am directed to address you in continuation of my telegram No. 1089 (Sanitary), dated the 25th March, and to explain somewhat more fully the views of the Government of India on the subject of the land quarantine.

2. It appears to the Government of India that the general objections against land quarantine which they consider to be overwhelming

and which were indicated in my telegram No. 934, dated the 12th March, hold good in the case of the imposition of quarantine by one local area against another local area. Such quarantine, besides being opposed to the principles that have been repeatedly affirmed by those who have most studied the subject, is sure to be ineffectual, to give rise to hardship and oppression, and very possibly it may foster outbreaks of the disease. The only circumstances under which the imposition of strict quarantine is possible and likely to be effectual is when the outbreak occurs in a small place, the inhabitants of which can be easily and surely isolated and then the isolation must be most carefully regulated and controlled and proper sanitary precautions must be taken. The recent outbreak in the village of Khandraoni in the Gwalior State affords an instance of this kind. An account of the outbreak and of

Telegram from the Government of the North-Western Provinces and Oudh, dated 17th March 1897.

Telegram from the Agent, Governor-General, Indore, No. 2767, dated 18th March 1897.

Telegram from the Agent, Governor-General, Indore, No. 998, dated 18th March 1897.

Telegram from the Agent, Governor-General, Indore, No. 998, dated 18th March 1897.

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Telegram from the Agent, Governor-General, Indore, No. 998, dated 18th March 1897.

the measures adopted to stamp it out is given in the correspondence which is forwarded with this letter for the information of the Governor in Council.

The circumstances were exceptionally favourable inasmuch as the village is small, it was found easy to isolate the inhabitants, and

a Commissioned Medical Officer of experience was deputed to the spot, and the adoption of all possible sanitary precautions and the prevention of extortion and oppression thus secured. The larger the place and the less complete its isolation, the greater become the difficulties and the point is very soon reached when they are insurmountable.

3. It is these considerations that have led the Government of India to consider that the rules framed for the protection of local areas

should not go beyond the grant of a wide discretion to the inspecting officers to detain and place under observation all suspicious persons.

No. 1289, dated Simla, the 14th April 1897.

No. 18.

From—J. P. HEWETT, Esq., C.I.E., Secretary to the Government of India,
Home Department,

To—The Secretary to the Government of Bombay.

I am directed to refer to Rules 26 and 29 of the new edition of the General Rules under Act III of 1897, published in the Resolution of the Government of Bombay, No. 1728—1201-P., dated the 29th March 1897. Rule 26 empowers District Magistrates, when they consider it necessary, to impose quarantine at any place or places against any other place or places. Rule 29 empowers District Magistrates, with the sanction of the Commissioner, to prohibit intercommunication between any place and any other places. I am to point out that these rules which authorise the imposition of absolute land quarantine are not in accordance with the instructions contained in this Department telegram No. 1089, dated the 25th March 1897, and this Department letter No. 1167, dated the 29th March 1897, which conveys the views of the Government of India on the subject of land quarantine. The Government of India will be glad to learn whether the rules in question have now been modified.

No. 1680-P., dated Bombay Castle, the 27th April 1897.

No. 19.

From—J. DEC. ATKINS, Esq., I.C.S., Secretary to the Government of
Bombay, General Department,

To—The Secretary to the Government of India, Home Department.

I am directed to forward, for the information of the Government of India, the accompanying copy of a letter from Surgeon-Major W. L. Read, A.M.S., Joint Plague Commissioner, dated April 1897, relative to the necessity for quarantine measures as a preventive against the spread of bubonic plague.

Dated Bombay, the April 1897.

From—SURGEON-MAJOR W. L. READE, A.M.S., Joint Plague Commissioner to the Government of Bombay,

To—The Secretary to the Government of Bombay.

With reference to General Department No. 1976—1449-P., views of Government of India regarding land quarantine dated 12th April 1897, I cannot but think that the principles of local and general quarantine should, for administrative purposes, be kept quite distinct, and

I would urge that in conceding the principles of land quarantine the Government of India would not be inconsistent in the view which I understand has been enunciated in their behalf at the Venice Conference, with regard to the quarantining of arrivals from India at European ports.

That plague follows the lines of human intercourse and is spread by human beings is written large in the Epidemiological History of the human race, and every succeeding epidemic, including the present one, amply bears this out; it can *only* spread along these lines.

The great spread of the disease which has occurred in the Bombay Presidency is due to the hurrying crowds of panic-stricken people, who, as a rule, are rushing from the place of greatest infection, many in their fear deserting their dead and dying relatives; it is these panic-stricken people that it is so essential to catch, almost as much as an individual enveloped in flames, who, by his flight, not only injures himself, but may bring devastation on others. Unfortunately the bacillus of plague is not of a luminant nature, hence the necessity of quarantining all suspects.

Absolute quarantine is an admitted hardship, it paralyses trade and dislocates the ordinary routine of every day life, it should therefore be enacted in a common sense manner and interpreted in a spirit of expediency. By a liberal grant of what may be called sanitary passes, the hardships of quarantine can be largely mitigated. The scheme of quarantine is to impound all persons and effects, who, from the locality they come from, and also from the purport of their journey, are likely to be spreaders of the disease.

If the power to sign sanitary passes was given to a certain number of responsible officials, the spirit and practical effects of quarantine would be enforced. Because quarantine is not made absolute it by no means follows that the measure is inoperative. Every plague case is a possible focus of infection and every person that is kept within quarantine limits is a possible centre of infection that has been repressed. There is no disease that can so readily be smothered in its initial stage, therefore an occasional case that may escape the scrutiny of the quarantine officials would do but little harm; it is when many escape that the disease becomes heightened up into epidemic dimensions and it becomes difficult to keep it in check. Local quarantine may be divided into :—

- (a) Camps of observation for people leaving an infected area to prevent the spread of disease into the districts.
- (b) Camps of observation for arrivals from infected districts to prevent the reinfection of a place already infected.

- (c) Camps of observation in districts which have not as yet been infected for arrivals from infected districts.

In a well regulated quarantine camp, where strict disinfection and supervision is carried out, the fear of the spread of the infection is infinitesimal, and if it does spread it shows a badly regulated camp. This has been amply proved in the Poona segregation camp, where the average number of inhabitants have been as much as 800, and yet in the period of over a month only some 30 cases have occurred, and these were probably infected on arrival, for it must be remembered that these people were all relatives or friends taken from the infected houses.

The non-success of the camps at Karrachi was due to the fact which I pointed out in my report on this place, that no preliminary disinfection had been carried out and no supervision had been exercised. They were camps *minus* any quarantine restrictions whatsoever. There is evidence in several instances in this epidemic of infected clothes brought to a village previously clear and the plague breaking out, although the people who brought the clothes remained free from the disease.

The ideal attitude of a populace in plague time should be one of quiescence, and it cannot be too earnestly impressed on all that this disease can be successfully fought in the place in which it occurs, and that every endeavour should be made to keep the people within the infected area until the fight is over.

The principle of general sea quarantine is a much more involved question, and it will vary according to the tenacity of life of the bacillus which causes the disease. Fortunately the microbe, that is responsible for the spread of this disease, is a microbe of very small verile power; it is killed in weak antiseptic solutions, and recent bacteriological investigations tend to show that this bacillus quickly succumbs to the attacks of the other non-pathogenic bacteria who are always present, that in fact infected clothing and rooms will in time disinfect themselves.

In what time this auto-disinfection will take to carry out will be for future researches to show, but there is some evidence going to prove that this process is carried out in less than a week. That clean merchandise can become infected is highly improbable, that it can carry it for more than 24 hours is quite impossible, as the bacillus must perish for want of pabulum. This may be asserted with absolute certainty both from bacteriological evidence and also the important negative evidence that no case of the transmission of the disease to Europe through merchandise has been reported, or even so far as

my knowledge goes to Aden or Suez, although there was free communication between these Ports and Bombay.

Had infection by means of merchandise been possible, it must have occurred, as it is in my personal knowledge that cotton bales in Karrachi were packed by a community who, at the time, were suffering greatly from the ravages of the plague. It may therefore be affirmed that while local quarantine is necessary in combating the disease; that all evidence goes to prove that general sea quarantine is unnecessary, when the port of arrival is a week distant from the affected port, so that practically it may be said that quarantine outside Indian limits ought to be unnecessary.

I feel sure that it would be true and statesman-like policy to freely accept the fact of the communicability of this disease along the lines of human intercourse, a fact which stands out in every history of this disease, and moreover a fact that will be emphasised when the history of the present visitation comes to be written.

Should this be accepted and acted on by the Government of India, it is quite certain that it would inspire the European Powers with a confidence that the true nature of the disease is known and acted on in India, and it would go a long way towards breaking down the protective quarantine which at present exists and which is liable to be put on again in another epidemic of the plague in India.

The communicability of this disease must be well known to all medical authorities on whom these Powers rely for advice, and the rigorous quarantine which has been enacted is probably largely due to the half-hearted acceptance of this fact on the part of the Indian authorities.

I hope in this letter that it will not be considered that I have expressed my views too frankly. I have done so from an honest conviction of their truth.

No. 20.

No. 2565—1979-P., dated Bombay Castle, the 11th May 1897.

From—J. DE C. ATKINS, Esq., I.C.S., Secretary to the Government of Bombay, General Department,

To—The Secretary to the Government of India, Home Department.

I am directed to acknowledge the receipt of your letter No. 1289, dated 14th ultimo, enquiring whether Rules 26 and 29 of the General Rules under Act III of 1897, published in Government Resolution No. 1728—1201-P., dated 29th March 1897, have been modified to meet the views of the Government of India regarding land quarantine.

2. In reply I am directed to state that the views of the Government of India as contained in your letter No. 1167, dated the 29th March 1897, were communicated to all the officers concerned with the working of Rules 26 and 29, and to remark that absolute quarantine is not in practice imposed, and that the rules are worked in such a way as the Governor in Council believes would not afford ground for objection on the part of the Government of India. I am to add that the difficulty of redrafting these two rules so as to literally coincide with the views of the Government of India is so great that Government would prefer to keep their own rules with proper safeguards against their abuse in practice.

No. 1602, dated Simla, the 28th May 1897.

No. 21.

From—J. P. HEWETT, Esq., C.I.E., Secretary to the Government of India,
Home Department,

To—The Secretary to the Government of Bombay, General Department.

I am directed to reply to your letter No. 1680-P., dated the 27th April 1897, forwarding, for the information of the Government of India, a copy of a letter from Surgeon-Major W. L. Reade, A.M.S., Joint Plague Commissioner, on the subject of quarantine measures as a preventive against the spread of bubonic plague.

2. Upon the question of land-quarantine the opinions of the Government of India have already been plainly expressed. They thoroughly approve of the detention of suspicious persons under observation, and fully recognise that such detention results in the detection of cases of which there is no outward and visible sign at the time the passenger is detained. But such detention is very different to the imposition of absolute quarantine or the absolute prohibition of inter-communication between different places such as are authorised in Rules 26 and 29, respectively, of the new edition of the General Rules under Act III of 1897, published in the Resolution of the Government of Bombay, No. 1728—1201-P., dated the 29th March 1897. It was pointed out in my letter No. 1289, dated the 14th April 1897, that the rules referred to are not in accordance with the instructions contained in this Department telegram No. 1089, dated the 25th March 1897, and this Department letter No. 1167, dated the 29th March 1897, and it was stated that the Government of India would be glad to learn whether the rules in question had been modified. A reply to this question is contained in your letter No. 2565—1979-P., dated the 11th instant, in which it is stated that the views of the Government of India, as contained in my letter No. 1167, dated the 29th March 1897, were communicated to all the officers concerned with the working of Rules 26 and 29, that absolute quarantine is not in practice imposed

and that the rules are worked in such a way as the Governor in Council believes would not afford ground for objection on the part of the Government of India. It is further stated that the difficulty of redrafting the two rules so as to literally coincide with the views of the Government of India is so great that the Government of Bombay would prefer to keep their own rules with proper safeguards against their abuse in practice.

3. In reply to these remarks I am to say that the Government of India regret that they must adhere to the opinion that is open to grave objection to maintain rules which authorise the practice, which they consider to be most mischievous, of imposing absolute quarantine, or the absolute prohibition of communication between different places, even though orders are issued explaining that the rules may not be carried out in their entirety. The Government of India are assured that it is unnecessary to recall to the Government of Bombay the orders that they have issued on the subject of land-quarantine and they have no doubt that these orders are now being obeyed. But they are unable to accept the view that it is not possible to give expression to these orders in such a manner as to obviate the necessity of retaining Rules 26 and 29, which authorise an action which is really contrary to them. The subsidiary orders issued in the Resolutions of the Government of Bombay, No. 1976—1449-P., dated the 12th April 1897, and No. 2124-A.—1583-A. P., dated the 21st April 1897, are in accordance with the views of the Government of India, and I am to suggest that if orders issued applying the principles on which these resolutions are based to persons leaving an infected area by railroad or other means and to persons arriving at healthy places by any such means from an infected area there would be no necessity for retaining Rules 26 and 29. The Government of India trust that the Government of Bombay will now cancel these two rules.

4. I am in particular to remark that the Government of India are strongly of the opinion that it is undesirable to prescribe as in the case of the rules for Mahableshwar and Panchgani published in the Resolution of the Government of Bombay, No. 1496—955-P., dated the 17th March 1897, that all except certain exempted persons, who would no doubt be medically examined, should be treated as suspicious. The detention of persons likely to carry infection should be secured by giving to the medical officers deputed to inspect travellers the widest discretion to stop any person who is at all suspicious, whether by reason of his symptoms, appearance or the dirty condition of his clothes, or who comes from an infected locality and belongs to the class of people, who, on entering a town, can neither be traced nor are likely to give information of cases of plague occurring among

them. The general result in the two cases would probably not differ greatly, but the Government of India consider that inspecting by the inspection officer in the manner described above is the proper and the fair way of arriving at that result, and that it is most inexpedient to treat all persons except those belonging to certain exempted classes as suspicious. The Government of India therefore think that the rules for Mahableshwar and Panchgani referred to above ought to be modified so as to be brought into accordance with their views expressed above.

Government of Bombay Notification No. 5391—3495-P., dated the 5th October 1897. No. 22.

The following rules are sanctioned by Government under the Epidemic Diseases Act (III) of 1887 :—

*1. When any town or village or group of villages has, in the opinion of the Magistrate of the District, become so seriously infected with plague as to justify the measure, the District Magistrate may declare such town or village or group of villages to be an infected area and appoint one or more resident Plague Authorities, who should invariably be persons of known and approved character and responsible position, for such infected area, and may give notice to the Railway Authorities at any station within 20 miles of such infected area not to book any passenger unless such passenger either produces a pass signed by a resident Plague Authority, or a certificate from such special officer as may be appointed in that behalf or, where no such special officer has been appointed, from the patel and village accountant of his village (such village not being within the said infected area) that he is a resident of such village and has only just quitted it.

2. The District Magistrate may prohibit the departure of any person or classes of persons from an infected area, except under passes granted by a resident Plague Authority appointed by the District Magistrate, and may set up the gates, chowkies, etc., and, with the sanction of the Commissioner, employ the establishment necessary to enforce this order: provided that any person shall be entitled to a pass who has been segregated to the satisfaction of the resident Plague Authority (†) *in charge of the segregation quarters* for seven days without exhibiting any sign of infection. The prohibition mentioned in this rule must not be issued until segregation quarters have been erected outside the town or village. It shall

* As amended by Notification No. 5729—3726-P., dated 20th October 1897.

† Inserted by Notification No. 5608-A.—3596-P., dated 14th October 1897.

ordinarily be the duty of the District Magistrate to make arrangements for the erection of such quarters in every infected town.

3. When the District Magistrate has applied Rule 2 to any place or group of villages, no person from such place or from any village of such group may go and reside in any other place or village, whether within or without the same group, without a pass in that behalf from the resident Plague Authority. To spend a night in any place constitutes residence under this rule. It shall be the duty of every village officer to prevent persons from residing in his village in breach of this rule. District Magistrates should be instructed to issue notices, which should be posted up in every village *chardi*, prohibiting the entry into the village site of any person coming from an infected area without a pass from the resident Plague Authority—if a resident Plague Authority has been appointed for such area—or the entry of persons showing any signs of plague. This notice, copies of which should be given to all officiating patels and village accountants, should state that the Patel and village accountant will be dismissed if the order is disobeyed.

** Notwithstanding anything contained in this rule, it shall rest with the District Magistrate, at his discretion, to exempt from the necessity of taking out passes persons who are merely returning from an infected area to their own village after bringing to market in such infected area articles of food or fuel;*

Provided that such return be within eight hours after arrival, and not after sunset, and that this exemption shall not apply to any such person who may have entered a dwelling-house within the infected area.

4. The passes to be issued by the resident Plague Authority may be of two kinds, either (1) general or (2) special. General passes may be given to agriculturists and others having occasion to make daily or frequent journeys by road, rail or boat from an infected area, and may be given for an indefinite period; but they will not cover residence outside of the infected area, and will not cover journeys by rail unless that is expressly stated on them. In the case of agriculturists, where the resident Plague Authority is satisfied that it is necessary for the whole family to go and work in the fields, a single pass may be given for the family, but there must be a separate pass for each person making a railway journey under a general pass. Special passes shall be passes permitting persons to leave the infected area and reside elsewhere, and may be granted for households,

* Inserted by Notification No. 5608-A.—2596-P., dated 14th October 1897.

provided that the name and description of each person covered by the pass is entered therein.

5. General passes should be given freely, and in the case of agriculturists working in the fields need not be revoked even should a case of plague occur in the family of the passholder. It shall be in the discretion of the District Magistrate to exempt all persons making frequent journeys by road or boat from the necessity of taking out general passes, and to direct that only persons appearing to be leaving the infected area by road or boat to reside elsewhere shall be detained at the chowkies unless they possess special passes. All persons travelling in or with carriages and carts, or carrying luggage of any kind, or having women and children with them (unless they are believed to be agriculturists) may be presumed to be intending to go and reside elsewhere.

6. Special passes may also be given freely, especially at the beginning of an epidemic, when the resident Plague Authority is satisfied that no case of plague has occurred in the house of the applicant, or in any adjacent house or among any of his relations or associates: provided that the resident Plague Authority may always require the disinfection in a prescribed manner of all clothes and other articles to be taken away before a pass is given. When the applicant is known or suspected to have been exposed to infection, the resident Plague Authority shall defer granting the pass until the applicant has been kept under medical observation (1) for a period which may extend to ten days, (2) or until the reasons for suspicion have disappeared. In such cases disinfection of clothes, etc., should always be insisted on. In this rule applicant includes all the persons in a household on whose behalf a special pass is applied for.

7. Every person appearing to be sick when applying for a ticket at a railway station booking office, or passing a chowki outwards, shall be stopped and sent to the resident Plague Authority or a Medical Plague Authority, unless his pass specifies his sickness.

8. When there is a town or large village in the vicinity of an infected area, the District Magistrate may establish camps of observation at such town or large village against persons coming from an infected area, and may detain in such camps all suspected persons coming from such area without passes from the resident Plague Authority.

9. The District Magistrate may appoint an inspecting Plague Authority to tour constantly about all villages within a radius of 20 miles from an infected area for which a resident Plague Authority has been appointed. It will be among the duties of the inspecting

Plague Authority to explain rule 3 and their duties under it and the rules generally to the village officers, to report village officers who neglect their duties, to prosecute persons who may have committed a breach of rule 3 or any other plague rule, and to inculcate on the villagers the necessity of keeping a strict observance of rule 25 of the Mofussil Plague Rules.

10. Every pass shall contain the following particulars, *viz.*, the name in full, caste, age, occupation, address, and if a special pass, destination and date of departure of the person or persons covered by it. Every pass, special or general, intended to cover journey by rail, shall state this clearly on its face; and such passes shall always be in English. All passes will be dated and signed by the resident plague authority.

11. A notice under rule 1 shall be withdrawn by the District Magistrate as soon as he is satisfied that the place or group of villages is free from infection, and a place or group of villages shall ordinarily be considered free when seven days have elapsed without the occurrence of any fresh local case.

12. Nothing in these rules shall render it necessary for any European, or any Government official, or any railway employé proceeding by rail on duty, to obtain any pass, special or general, and the District Magistrate may in his discretion extend this exemption to the families and attendants of such persons.

No. 23.

No. 2349, dated Simla, the 26th October 1897.

From—J. P. HEWETT, Esq., C.I.E., Secretary to the Government of India, Home Department,

To—The Secretary to the Government of Bombay, General Department.

I am directed to refer to the correspondence ending with your telegram No. 1847-P., dated the 13th instant, on the subject of precautionary measures to prevent the spread of plague from Palaopur, and to the rules issued by the Government of Bombay in the Resolution, No. 5391—3495-P., dated the 5th instant, alluded to in your telegram. These rules for the control of the movement of people from infected localities have been carefully considered by the Government of India, and I am to convey the following remarks with regard to them.

2. In the first place it appears to the Government of India that although the wording of rules 5 and 6 is elastic, the general tenor of the rules is such as to give an indirect encouragement to land quarantine, and that the plague authorities charged with working them might easily, unless their action is very carefully supervised, utilise them for

the imposition of such quarantine. The Government of Bombay are aware that the Government of India have been from the outset, for reasons which have been fully explained, strongly averse to the imposition of land quarantine. This view has been endorsed by the recent Sanitary Conference at Venice, and must be strictly followed by the authorities in India. The Governor General in Council therefore considers it essential that the rules must be worked with discretion and under careful supervision, and that it is incumbent on the Government of Bombay to make arrangements to ensure that no action is taken under them which would amount practically to the imposition of land quarantine.

3. In the second place the Government of India consider that the form of the rules is open to objection, inasmuch as it exempts certain classes of persons from their operation. Thus, under rule 5, agriculturists working in the fields may continue to use general passes even though a case of plague should occur in the family of the passholder, and rule 12 states that it shall not be necessary for any European or any Government official, or any railway employé proceeding by rail on duty, to obtain any pass, and that the District Magistrate may in his discretion extend this exemption to the families and attendants of such persons. The views held by the Government of India on the subject of the form of rules to control the movement of people were explained in paragraph 4 of my letter No. 1602, dated the 28th May 1897, with regard to the special case of the regulations for the protection of Mahableshwar from the spread of infection. The Government of India are totally opposed to any interference with the ordinary avocations of persons who are not sick or suspicious, but in their opinion it is wrong to exempt special classes of persons from the operation of the rules. The principle which should govern the rules is that they should apply to all classes, but that detention should be enforced only in the case of such persons as are considered "suspicious" by the responsible officer in the exercise of the wide discretion described in the Notification of the Government of Bombay, No. 3285—2425-P., dated the 15th June 1897. I am to request that, with the permission of the Governor in Council, the form of the rules may be revised in the sense of these remarks.

4. Rule 2 fixes the period of segregation for applicants for passes whom it is considered necessary to detain for seven days. In the opinion of the Government of India, this period should be raised to ten days, the term fixed by the Venice Sanitary Convention. It is not safe to permit the departure of a suspicious person until he has been kept in segregation for the full ten days' period. A similar alteration is required in rule 11.

5. In conclusion, I am to say that the Governor General in Council is convinced that these elaborate rules for the control of the movement of people from infected localities will be powerless to check the spread of the disease unless they are accompanied by stringent measures to suppress the malady within the infected areas. Indeed it appears to His Excellency in Council that in the absence of such measures the compulsory detention of the inmates in infected localities will tend to foster the growth of the epidemic, and to establish plague *foci* whence the disease may spread with even greater virulence than if no measures had been devised to prevent the egress of the inhabitants. His Excellency in Council is therefore strongly of opinion that the most important object to aim at is, not the control of the movement of the people, but the adoption of such well-devised and stringent measures as will prevent the occurrence of plague cases from engendering fresh dangerous plague centres, whence the infection will certainly spread in spite of all efforts to confine it. Experience has shown that the measures upon which reliance may be placed to effect this end are in outline—

- (1) The prompt detection of cases by (a) search parties, and (b) better registration of deaths.
- (2) The removal of the sick to segregation hospitals.
- (3) The detention in segregation of healthy occupants of infected houses.
- (4) The evacuation of infected quarters.
- (5) The cleansing and disinfection of infected houses and quarters.
- (6) General sanitary improvements, such as the abatement of overcrowding and the improvement of ventilation and drainage.

His Excellency in Council is convinced that the general adoption of these measures in all places in which plague exists is essential, and the only means by which the danger of the general dissemination of the disease which now unfortunately exists can be averted. His Excellency in Council therefore trusts that every effort will be made to adopt these all-important precautions with general promptitude and vigour. In your telegram No. P.—1571-P., dated the 23rd September, it is stated that district officers understand the necessity for evacuating infected houses in rural tracts, and that the rain had hitherto made the provision of segregation camps a matter of very great difficulty and in some cases impossibility. Now that the rainy season is over, this difficulty will have been removed, but the Government of India are without further information as to what steps are actually being taken to ensure the evacuation of infected houses and localities. They would be glad to receive an assurance that this, as

well as the other necessary precautions, are being generally and thoroughly carried out.

6. With regard to the special case of Palanpur, I am to say that, subject to the remarks made in the preceding paragraph, the Government of India have no objection to the imposition of the Regulations of the 5th instant at Palanpur, and in especial the enforcement of the provision of rule 1 which deals with the subject of the railway passenger traffic. In your telegram of the 13th instant it is stated that the latter portion of my telegram of the 8th instant beginning "quarters at Palanpur" is not understood. The meaning of the passage in question was that the Government of India desired to know whether the infected portions of the town of Palanpur had been evacuated and the residents detained in segregation. The Governor General in Council attaches the utmost importance to the adoption of all possible means to stamp out the dangerous epidemic in Palanpur.

Later correspondence regarding the stoppage of third class Railway Traffic.

Telegram No. 1287-P., dated 5th April 1897.

No. 24.

From—The Secretary to the Government of Bombay, General Department,
To—The Secretary to the Government of India, Home Department.

Commissioner in Sind telegraphs:—*Begins.* Owing bad type plague prevailing Sukkur and doctors engaged in town, Manager, North-Western Railway, has at my request stopped booking second, intermediate and third class passengers to stations in Punjab and Baluchistan from Sukkur, Bagarji, Rohri and Sangi, except under written permission of Sukkur-Rohri Plague Committee. Measure seemed necessary protection Punjab and trust Government will issue notification. *Ends.* Government of Bombay will readily agree to any restrictions Government of India like to impose.

Telegram No. 1278, dated 13th April 1897.

No. 25.

From—The Secretary to the Government of India, Home Department,
To—The Secretary to the Government of Bombay, General Department.

Your 1287-P., dated 5th. Stoppage by Commissioner in Sind of booking except first class to Punjab and Baluchistan from Sukkur and neighbouring stations. Government of India consider it sufficient to medically examine all passengers booking at Sukkur giving

inspecting officer wide discretion to retain under observation all persons who are suspicious by reason of their symptoms, appearance or the state of their clothes or personal effects, and all persons unable to give satisfactory addresses and who are not likely to be traced or give information of plague cases. Destinations of persons allowed to go should be noted and communicated to local officials. Government of India presume that authorities at Sukkur are taking necessary steps to isolate sick and disinfect and where necessary burn houses attacked, placing persons who have been in contact with sick under observation in segregation camps. Occupants of houses immediately adjoining infected houses might advantageously be treated in same way.

No. 26.

Telegram No. M.—399-P., dated Mahableshtar, the 15th May 1897.

From—The Secretary to the Government of Bombay, General Department,
To—The Secretary to the Government of India, Home Department.

Commissioner, Sind, wires :—*Begins.* "District Magistrate, Sukkur, wires : Plague increasing Rohri and exodus commenced and evade local arrangements. Have requested Manager, Lahore, stop all booking temporarily, except with written permission of Plague Committee from Sukkur and Rohri, and from all stations between Rohri and Shikarpur, excluding Shikarpur, and from all stations between Rohri and Reti, excluding Reti, and from all stations between Rohri and Setharji. Am proceeding Sukkur and hope interruption passenger traffic will be temporary. Will arrange permit people free from suspicion to depart." *Ends.* Orders solicited.

No. 27.

Telegram No. 1514, dated Simla, the 16th May 1897.

From—The Secretary to the Government of India, Home Department,
To—The Secretary to the Government of Bombay, General Department.

Your telegram of 15th instant, regarding proposals of Magistrate of Sukkur about railway traffic. Government of India fear it will be impossible to arrange for passes to non-suspected persons at all stations from which booking is to be stopped, and arrangements proposed are not in accordance with views expressed in my telegram No. 1278 of 13th April. Would it not be possible to arrange for stoppage and isolation of all suspected persons at Rohri itself? On the Shikarpur side the Indus crossing can presumably be guarded. Government of India would be glad to learn what arrangements have been made for cleansing Rohri, evacuating infected quarters and providing for infected persons there. Daily telegrams show 25 cases in Shikarpur District between 8th and 15th May. How many of these occurred at Rohri?

Telegram No. M.—599-P., dated Mahableshtar, the 1st June 1897.

No. 28.

From—The Secretary to the Government of Bombay, General Department,
To—The Secretary to the Government of India, Home Department.

Your telegram 1514-Sanitary of 18th ultimo, Rohri. For week ending May 7th—20 plague cases, 17 deaths; 14th—19 cases, 16 deaths; 21st—9 cases, 5 deaths; 28th—11 cases, 5 deaths. Sukkur taluka, no case reported for week. Rohri taluka, no case reported since 24th. Arrangements for isolation of sick, evacuation of infected quarter Rohri good, and for guarding Indus booking now resumed between Ruk and Sukkur inclusive, and Setharji and Tando Masti Khan inclusive. Indus can be guarded on Sukkur side. Proposal for stoppage and isolation of all suspected persons at Rohri not fully understood. Government would prefer not to interfere with Mr. Wingate's arrangements; he is anxious to interfere as little as possible with booking arrangements.

Telegram No. 1646, dated Simla, the 4th June 1897.

No. 29.

From—The Secretary to the Government of India, Home Department,
To—The Secretary to the Government of Bombay, General Department.

Your telegram No. 599-P., dated 1st. Plague at Rohri. Meaning of suggestion in my telegram 1514 of 18th May that all suspected persons should be stopped and isolated at Rohri itself is that instructions prescribed for Sukkur in my telegram 1278, dated 13th April, should be applied at Rohri for protection of Punjab and other places, namely, that all passengers booking at Rohri should be immediately examined, inspecting officer being given wide discretion to retain under observation all persons who are suspicious by reason of their symptoms, appearance or state of their clothes and all persons unable to give satisfactory addresses and who are not likely to be traced or give information of plague cases. If it is considered necessary to stop booking at stations in neighbourhood of Rohri to prevent evasion of inspection, Government of India would not object to this course; but this is all they can consent to, and they request that the prohibition against booking to the remainder between Rohri and Reti may be withdrawn.

Telegram, dated Ganesh Khind, the 12th June 1897.

No. 30.

From—The Private Secretary to the Governor of Bombay,
To—The Secretary to the Government of India, Home Department.

Your telegram 1646-Sanitary of 4th June. Commissioner in Sind wires:—*Begins*. Booking is reopened between Pano Akil and

Reti, both inclusive, and at Khairpur; booking is reopening at Rohri by mail trains and from 12th instant by all trains. This meets Government India wishes. *Ends.*

Telegram No. 100, dated the 26th March 1897.

No. 31.

From—The Agent to the Governor General, Baluchistan,

To—The Foreign Secretary, Calcutta.

There is serious risk of plague extending to Quetta, owing to number of arrivals here from Karachi and infected towns in Sind. Two hundred such arrivals in last five days. If plague reaches Quetta, it will probably extend to Afghanistan. It seems to me only effective means of prevention is imposition of quarantine. Jacobabad is imposing quarantine on all arrivals from Sukkur, Shikarpur, Kotri, Hyderabad, Larkana, and Karachi, and I would strongly recommend that similar quarantine should, with permission of Commissioner in Sind, be imposed at Jacobabad on all native third class and intermediate class passengers for Baluchistan from these places except perhaps servants of first and second class passengers. I could establish quarantine at Sibi, but though better than nothing this would not be nearly as effective as quarantine at Jacobabad, as passengers might alight at intervening stations. With quarantine on railway passengers at Jacobabad, it should be almost impossible for disease to reach Baluchistan owing to intervening desert. I regard this as a matter of urgency as if done at all, it should be done at once before it is too late.

Telegram No. 1123, dated Simla, the 28th March 1897.

No. 32.

From—The Secretary to the Government of India, Home Department,

To—The Agent to the Governor General, Baluchistan.

Your telegram 100 of 26th, to Foreign. Government of India have in view of fact that land quarantine has always proved ineffective and that it affords opportunities for oppression and corruption and is likely to give rise to disease at places where it is enforced refused permission to establish it in other places in India. The fact that desert has to be crossed would render effective quarantine easier at Jacobabad than elsewhere, and in view of possibility of plague advancing by Baluchistan to Afghanistan the considerations stated above may in present instance be outweighed by political considerations. But if quarantine is to be imposed it should, in the opinion of Government of India, be imposed within British Baluchistan and not in Sind. Would it be possible to make arrangements at Jhatpat within your jurisdiction? If quarantine is imposed, it must, in the

opinion of the Government of India, apply to all passengers by whatever class they are travelling and whatever their race. And it will be necessary to establish at quarantine stations separate camps for each day's arrivals as well as hospitals and to provide for ten days' segregation. In other instances Government of India have, while refusing to impose quarantine, given widest discretion to inspecting medical officer to detain any person who may, by reason of his symptoms, appearance, state of his clothes and effects or in any other way, appear suspicious. Would not a strict regulation of this nature with Commissioned Medical Officer at Jhatpat secure what you wish?

Telegram No. 109, dated the 30th March 1897.

No. 33.

From—The Agent to the Governor General, Baluchistan,

To—The Secretary to the Government of India, Home Department.

Your No. 1123-Sanitary. Quarantine such as you describe seems hardly practicable. There is little water at desert stations and without aid from Government resources of agency would be insufficient. I am therefore taking immediate steps to carry out at Sibi your last suggestion. Can you lend me Commissioned Medical Officer for employment there? One imported case plague reported to-day from Sharigh.

Telegram No. 1270, dated Simla, the 12th April 1897.

No. 34.

From—The Secretary to the Government of India, Home Department,

To—The Agent to the Governor General, Baluchistan.

Continuation correspondence ending my telegram 1202, dated 5th. It is stated in newspapers that all third class passengers for Baluchistan are detained for ten days and camp is therefore expected to increase day by day until tenth day. Such an arrangement was not contemplated in my telegram of 28th. Please telegraph if newspaper report is correct and generally nature of arrangements made at Sibi.

Telegram No. 168, dated Quetta, the 13th April 1897.

No. 35.

From—The Agent to the Governor General, Baluchistan,

To—The Secretary to the Government of India, Home Department.

Your 1270-Sanitary. Newspaper report incorrect. All third class passengers are not detained for ten days. There is rigorous medical inspection at Sibi under supervision of Commissioned Medical Officer and Assistant Political Agent and in exercise of their discretion and with my approval medical officers detain, as plague suspects,

all native passengers from infected places in Sind unless they produce certificate from Plague Committee of place of departure or other proof that they have come from non-infected quarter. Other passengers travelling in same carriage with plague suspects are merely detained few hours for disinfection. Also as numerous refugees from Sukkur were found alighting desert stations and fleeing Kalat territory orders have issued stopping them alighting and requiring them to proceed Sibi first for inspection. In my opinion no measures short of this will prevent plague reaching Baluchistan. They have worked well and are cordially approved by all classes of community even by those whose families are detained. There has not been one complaint and number in camp yesterday after fortnight's working was only 304. This is maximum as exodus from Sind is decreasing. Measures adopted are less rigorous than those taken by Bombay Government in Sind towns like Jacobabad where local quarantine is enforced and in interests of this province I strongly deprecate any relaxation. If plague reaches Quetta we shall have much trouble with Pathan population.

No. 36.

Telegram No. 1297, dated Simla, the 15th April 1897.

From—The Secretary to the Government of India, Home Department,

To—The Agent to the Governor General, Baluchistan.

Your telegram 168, dated 13th. Government of India approve measures you have taken to prevent plague reaching Baluchistan and do not wish them relaxed in any particular.

Correspondence regarding the Preventive Cordon at Daman.

No. 37.

Telegram No. 1397, dated Simla, the 30th April 1897.

From—The Secretary to the Government of India, Home Department,

To—The Secretary to the Government of Bombay.

Government of India will be glad to know if report in newspapers that Daman has been isolated from all communication with surrounding country is true, and if so, on what grounds this measure has been justified.

No. 38.

Telegram No. $\frac{M.}{1737}$, dated Mahabaleshwar, the 4th May 1897.

From—The Secretary to the Government of Bombay, General Department,

To—The Secretary to the Government of India, Home Department.

Your telegram 1397—Sanitary, 30th. It is not true that Daman has been isolated from all communication with surrounding country,

Communication has been restricted because part of Daman is very seriously infected with plague. Letter follows.

No. $\frac{M.}{373-P.}$, dated Mahableshtar, the 14th May 1897.

No. 39

From—The Secretary to the Government of Bombay, General Department,

To—The Secretary to the Government of India, Home Department.

In continuation of my telegram No. $\frac{M.}{273-P.}$, dated 4th May 1897, I am directed to forward herewith, for the information of the Government of India, extracts from reports regarding the observation camp and the cordon connected therewith on the frontier of Damaun. It will be seen that no restrictions have been approved by the Government of Bombay except such as are necessary to prevent Daman infecting with plague neighbouring uninfected British villages.

No. $\frac{B. P.}{472}$, dated Surat, the 23rd March 1897.

From—The District Magistrate, Surat,

To—The Commissioner, Northern Division.

I have the honour to forward herewith a correspondence which has been handed to me by Mr. Judge, Assistant Collector of Salt Revenue.

2. I am informed from various sources that plague is spreading fast through Daman territory.

There is, therefore, a great likelihood that the Pardi Taluka will be infected if immediate steps are not taken.

3. Mr. Judge has been good enough to offer the assistance of the whole of his Daman Frontier Guard.

This guard is stationed along the Kolak river and the railway line and therefore commands the fords and the level crossings.

It could, to a great extent, if not entirely, prevent the ingress and egress of any one to and from Daman territory out of or into the Pardi Taluka except as regards a few villages west of the railway line, which would have to take care of themselves.

4. As part of the Daman territory (Nagar Haveli) lies east of the railway line, I would suggest that Portuguese Government officials going to and fro should not be stopped unless actually suffering from plague. Thus the administration will not be interfered with and the chief objection from the Portuguese point of view removed.

5. But officials apart, I respectfully, but urgently, ask your sanction to the establishment of a cordon by means of the Daman Frontier Guard round Daman territory and the bit of the Pardi Taluka lying west of the railway line.

It is not enough to say that our villages can protect themselves.

For though they may prevent strangers from infected places entering their limits, they will not prevent their own inhabitants from resorting to Daman territory to drink (as they do daily in crowds) and returning home, thus bringing infection with them.

6. As you will remember, Dr. Lowson, Plague Commissioner, during his visit to Surat, spoke strongly in favour of cordons.

I hope, therefore, you will see fit to sanction my present proposal at an early date.

No. 102-Police, dated the 25th March 1897.

From—The Commissioner, Northern Division,

To—The District Magistrate, Surat.

The District Magistrate's proposals are sanctioned. It is understood that the Daman Frontier Guard has charge of the Thana District frontier also, and if so, the cordon should extend there also. Mr. Moore will kindly ask Mr. Judge to inform the Commissioner demi-officially about this.

No. 508-B. P., dated the 26th March 1897.

From—The District Magistrate, Surat,

To—H. M. JUDOS, Esq.

Forwarded with compliments to H. M. Judge, Esq., Assistant Collector of Salt Revenue, together with a copy of the undersigned's report to the Commissioner, Northern Division, for information, guidance and favour of action.

2. Messrs. Dart and Smy, the Inspectors, Daman Frontier, and Mr. Valabhram Sarkarkun Kunta are hereby appointed plague authorities for their charges as far as contained in the Surat District. Mr. Judge himself is hereby appointed plague authority for the whole district of Surat.

3. Mr. Judge will note that Portuguese officials, bearing passes signed by His Excellency the Governor of Daman, should not be stopped by the cordon.

4. The District Superintendent of Police has been requested to co-operate with Mr. Judge in forming the cordon.

Charges of disobedience to the accompanying order should be lodged before the Mamlatdar and 2nd class Magistrate, Pardi.

Extract paragraph 3 of a letter from the District Magistrate, Surat, No. 523-B.P., dated 27th March 1897.

"Information having been received that plague was spreading fast through Daman territory and fears being entertained that it would

affect the Pardi Taluka, I requested the Commissioner, Northern Division, to sanction the establishment of a cordon by means of the Daman Frontier Guard of the Salt Department round Daman territory and the bit of the Pardi Taluka lying west of the railway line. My proposals having met with the approval of the Commissioner, I have arranged to stop all intercommunication from Tuesday, the 30th instant. I beg to append copies of my letter to the Governor of Daman and of my notification. I may add that the notification has been published in Guzerati in all the villages which will be affected by this measure."

Extract, paragraph 1, of a letter from the District Magistrate, Surat, No. 631-B.P., dated the 3rd April 1897.

"I have the honour to report that during the week ending 2nd instant, the cordon stopping all intercommunication between all places lying within and on the Daman side of the Daman Frontier line of the Salt Department and all places lying without and on the other side of that line was established. The Governor of Daman having asked me to arrange for the importation of mhowra flowers into Daman, his request was complied with on condition that the mhowra flowers be carried in British carts from the Daman road station to a certain place on the cordon line and there be transferred to Portuguese carts."

Extract, paragraphs 1, 5, 6, 7, of a memorandum from the Commissioner, Northern Division, No. 130-Police, dated the 12th April 1897.

"1. As plague is raging in Daman and the arrangements there are quite disorganised, the District Magistrate of Surat has, with the sanction of the Commissioner, prohibited intercommunication between Daman territory and eleven villages of the British taluka of Pardi on the one side and the rest of the British territory on the other. The eleven British villages have been included with Daman, because they were for convenience left on the other side of the Salt Department Preventive line which has been utilised for the purpose of a cordon. The object of the department was to get a straight line, and with this view they sacrificed a corner of British territory and left it outside.

* * * * *

"5. The Commissioner is convinced that these people have a real case and that the cordon cannot be kept on just as it is. The whole difficulty can be removed for the present by shifting the preventive line, *i.e.*, the cordon, on to the territorial frontier line, instead of the artificial course which it now takes. Mr. Judge has been good enough to consent to arrange for this,

"6. This line will be longer and involve more strain on the men. The Mamlatdar should therefore instruct the patels and people of the 11 villages to assist by patrolling their own borders. If they allow people to go from British territory to Daman villages to drink or for any other purpose, or to come from Daman into British villages, the old cordon will be reverted to. They should also assist in building temporary huts for the salt guards.

"7. The only expense involved will be in erecting these temporary huts, and if the people assist, the cost will be very small. It is impossible to estimate what it will be at present, but probably not more than one or two hundred rupees. It is hoped that Government will be pleased to sanction this expenditure and approve of action being taken at once."

No. 716-B. P., dated the 10th April 1897.

From—R. A. L. MOORE, Esq., District Magistrate, Surat,

To—F. S. P. LELY, Esq., Commissioner, Northern Division.

I have the honour to forward herewith copies of the whole correspondence that has taken place about the cordon that has been placed round Daman territory and that part of the Pardi Taluka that is west of the railway line and south of the Kolak river.

2. It will be perceived that I imposed the cordon under rule 29 of the rules under the Epidemic Diseases Act after obtaining your sanction.

3. The object of the cordon was to prevent the spread of plague from Daman, where it is admittedly raging into British territory.

Plague is stated by the best authorities, *e.g.*, Dr. Lowson, Plague Commissioner, to be contagious, and a cordon is the surest way to prevent contact.

4. The accompanying papers will show that I have treated the Daman authorities with due courtesy and have made every concession possible without making the cordon futile.

5. The concessions now demanded by His Excellency the Governor of Daman are such as, if granted, would render the cordon entirely inoperative.

Moreover, they are not necessary as supplies can be brought to Daman *by sea*.

It is true that I have made a concession by which mhowra flour may be brought from the Damaun road station to the cordon in British carts and taken from thence in Portuguese carts to Daman.

But I have only done this in order to avoid any show of discourtesy to the Portuguese administration, and to prevent the possibility of difficulties arising between them and their Abkari contractor.

It would be highly inadvisable to extend this concession to materials, such as rice, grass and firewood, for this would mean continued streams of traffic from British territory and from Daman meeting at the cordon.

Carters mixing at the meeting place would become subject to contagion, and undoubtedly facilities would be afforded to persons wishing to slip across from Daman into British territory.

6. I beg to invite your special attention to the proposals of His Excellency the Governor of Damaun—

(a) that persons should be allowed to take supplies into *Little Damaun* where he admits plague is raging from and through British territory and should be allowed to return into British territory, *though the Portuguese have themselves entirely cut off communication between Little and Big Daman* ;

(b) that the dhobies of *Little Daman* should be allowed to wash clothes (sometimes probably plague stricken) in British rivers *while they are debarred from using the river that flows between Big and Little Daman*.

Translated into plain English, this means that to save certain Portuguese subjects from inconvenience, British subjects are to undergo risks that His Excellency of Daman himself and the rest of the Portuguese subjects refuse to face.

7. As for the statement that plague is confined to *Little Daman*, this is doubtless accurate at present, but what certainty is there that it will remain so?

Moreover, how can the frontier guard distinguish between persons coming respectively from *Big and Little Daman*?

8. I should like to point out in conclusion that the cordon imposed surrounds not only Portuguese territory, but also a portion of British territory, namely, that part of the *Pardi Taluka* lying west of the railway line and south of the *Kolak* river.

It cannot, therefore, be said with truth that foreign territory has been more harshly treated than our own.

Perhaps, I may add that there seems to be an error in the population of *Daman* territory as stated by His Excellency the Governor in his letter under report (*viz.*, 70,000, seventy thousand) ; the population of the adjoining *Pardi Taluka* which has four times the area of *Daman* territory numbers in round figures 60,000 (sixty thousand) only.

Possibly His Excellency meant to write 7,000 (seven thousand). This is an important difference when the subject of supplies has to be considered.

No. 127-Police, dated the 12th April 1897.

From—The Commissioner, Northern Division,

To—The Secretary to the Government of Bombay, General Department.

* * * * *

3. It is to be noted that, however strict the measures of the District Magistrate of Surat, they are not more so than those adopted by the Governor of Daman for protection against his own people. Plague having broken out in Little Daman, he has shut himself up in Big Daman and absolutely cut off all communication. It is difficult to be sure of the facts, but it is credibly asserted that one day last week there were 40 deaths in Little Daman, and that no segregation is enforced. It is said there are isolated sheds, but no one is removed there unless he has no friends. Things being thus disorganised, it is only fair that the British authorities should protect their own people as severely as His Excellency the Governor protects himself.

4. His Excellency asks firstly that goods coming by rail for Daman may be allowed to pass there from the railway station. At present no *person* is allowed to enter Daman territory across the cordon, except (1) postal runners, (2) Portuguese officials, (3) Portuguese subjects armed with a pass from the Mamlatdar of Pardi which is only granted on a certificate from a Portuguese authority if he comes from Portuguese territory or from a British authority if he comes from British territory to the effect that he is a Portuguese subject. This arrangement is not objected to by the Governor. The importance to British interests of making it strict is that if large numbers of persons cross the frontier, many of them will certainly want to come back and will bring infection with them. More especially it is necessary to stop the crowds of people who go into Portuguese territory for the sake of the cheaper drink to be got there. Unless they are kept at home, they will certainly bring in the plague.

5. No *goods* whatever are allowed to enter Daman territory, except mhowra flowers which are allowed to be brought up to the cordon in British carts and then unloaded into Portuguese carts. This embargo against practically all imports is too absolutely to be maintained. There are many well-to-do Parsi families and others in Daman who in case of illness get such things as ice, fruit, medicine, from Bombay and at all times will be much inconvenienced if shut off altogether. The gross amount is likely to be very small and may be allowed to pass without any real danger, just as mhowra now is. Goods brought by rail from Bombay to Daman road railway station should be brought in British carts to the cordon, and then transhipped into Portuguese carts with separate bullocks and

drivers. With reference to the Collector's remarks that supplies may be brought in by *sea*, it should be noted that this mode of carriage is not always possible, and that in a few days more or less the sea route will be made difficult by the monsoon winds.

6. *Secondly*, the Governor asks that goods may be sent out of Daman *via* the railway station of Daman road under a pass signed by his delegate. This concession is quite unnecessary. Considering the present state of Daman, it would be fraught with danger to British subjects, and the embargo can cause little or no inconvenience to Daman, from which there is little to export at this time, and that little goes by sea.

7. *Thirdly*, he asks that firewood, grain and grass may be allowed to pass from the outlying Daman Taluka of Nagar Haveli into Damaun across the cordon. Now, this is a point to be carefully considered. The Commissioner has held a conference at Wapi with a number of persons with local knowledge, and has ascertained that ordinarily a very considerable traffic in firewood, grain and grass flows into Daman from the east. The Sirkarkun of Customs, who has the best opportunities of knowing, estimates the carts at 100 per day. Now it is clear this cannot be entirely stopped for long without causing keen distress. There are, however, some facts on the other side, (1) a good deal of grain is not for local use but for export by sea; and considering how little claim Daman has to consideration, this might be stopped for a while without compensation; (2) it is said by those who ought to know that by this time most of the season's grain and grass has already gone into Daman, and that in April and May little goes except firewood. Then, again, it is said (1) that firewood is selling at half the usual price east of the cordon because large quantities are blocked up here, and (2) that it is getting so scarce at Daman that there is difficulty in burning the dead. The whole question seems to the Commissioner to depend on what the facts are at Daman. If the price of these three necessities of life (grass, grain and firewood) is going up to famine pitch, then we are bound to relax the rule. It is very difficult to know the precise state of affairs in Daman, but the Commissioner has instructed the Sirkarkun, the Mamlatdar, and the Chief Constable to make independent inquiries; and when they report distinct signs of distress, one or all of these commodities may be allowed to pass under the same precautions as already adopted for mhowra flowers. If necessary, the establishment must be increased and every arrangement made to prevent confusion and evasion.

8. As to the fourth request, the Bhilad Railway station and Bamanpunja Naka should be on precisely the same footing and subject to the same rules and relaxations as Damaun Road Railway station and its corresponding Naka.

9. As to the fifth request, there is no objection.

10. The settlement of the sixth request should be the same as for grass. The Sirkarkun, Mamlatdar, and Chief Constable should be on the lookout for signs of scarcity at Damaun. It is not the desire of Government to deprive the people there of meat, and when the price of meat rises to an excessive height, cattle should be allowed to pass in (but not out) on condition of changing attendants.

11. The seventh complaint about washing clothes, the Commissioner has not been able to understand. The Damanganga referred to by Mr. Moore is salt, so also is the Kalu. But the Portuguese dhobies have hitherto been allowed to resort to an upper reach of the Kalu within British territory, and also to the south bank of the Kolak. The local officers say positively that no change has recently been made.

12. The system of changing carts and cartmen is quite practicable as shown recently in the case of Pardi. Of course it will tend to diminish traffic, which is what is desired. The Commissioner is inclined to think it should be done not at chowky No. 15 but at the Chala Naka, for two reasons—(1) there is a superior staff at Chola and (2) it is desirable to keep the concourse at a distance from the village of Wapi. If it takes place near the village, many people will escape into the bazaar and the danger of infection from the Portuguese carts is enormously increased. Undoubtedly the bundobust should be made at a distance from British population, *i.e.*, a way out on the road at Chala.

13. It should be explained for the information of Government that the embargo is carried out by the salt preventive force along their preventive line which cuts off from the Surat and Thana districts, the whole of the Damaun territory except the Nagar Haveli, and also about eleven British villages.

14. The report of the Collector of Surat, with accompaniments, is appended.

15. The favour of very early orders is requested as the matter requires speedy handling as well as judicious.

Extract paragraphs 8, 9, 10 and 11 of letter from the Assistant Collector, Salt Revenue, Surat Range, to the Commissioner, Northern Division, No. 789, dated 23rd April 1897.

8. "With reference to the plague in Damaun, I found on my visit there that about 30 deaths a day were taking place. At one burning-

ghat I counted 10 fires on two consecutive nights, and from reliable communications I am receiving, the plague is showing no signs of abating.

9. The arrangements in Chota Damaun are of a most feeble description, no segregation is enforced, people are being treated by private distribution of medicines, the Government is panic-stricken and shut up in the Fort in Big Damaun, and though various orders may be issued, there is no enforcement of them.

10. Further the plague is raging in the outlying villages of Damaun, and there is no attempt to grapple with it.

11. The people are exasperated with their Governor, and from the nervousness displayed by the Government terrified at the plague, and should the cordon be removed even for three days, I am informed from reliable sources and believe that thousands of people would leave Damaun and flood our territory and not one-quarter of the people now in Damaun would remain."

Extract paragraph 2 of a letter from the District Magistrate, Surat, No. 887-B.P., dated 24th April 1897.

"2. Arrangements have been made to watch the wants and food supply of the people of Damaun. Signs of scarcity or marked enhancement of the prices of food grains at Damaun will receive careful attention and the necessary arrangements will be made.

(a) Instructions have been given to the Mamlatdar of Pardi to give Portuguese subjects from Portuguese territory passes authorizing them to cross the cordon if they produce a certificate from the local Portuguese authority of the places whence they come, to the effect that they are *bonâ fide* Portuguese subjects.

(b) Arrangements are also being made at the suggestion of the Commissioner, Northern Division, to establish an observation camp, near the line of the cordon for allowing egress to healthy people who wish to leave Damaun.

(c) Under instructions from the Commissioner, Northern Division, the Mamlatdar of Pardi has been instructed to give a pass into Damaun to any one who follows the profession of a medical man, of whatever nationality he may be. The Governor of Damaun has been informed."

Extract from paragraph 3 of a Memorandum from the Commissioner, Northern Division, No. 181-Police, dated 27th April 1897.

3. * * "The undersigned trusts Government will give a general sanction in such terms as they may please to enable the Commissioner to protect British territory. A stampede of panic and plague

stricken people from Damaun into the Thana and Surat districts should be guarded against anyhow."

Extract paragraph 2 of a letter from the Commissioner, Northern Division, No. 188-Police, dated 28th April 1897.

2. "An observation camp is being established on the Damaun frontier conformably to the lines laid down in Government Resolution No. 1976-1449-P. of 12th April 1897, and it seems likely a good many will resort to it as people are getting very anxious to get out of Damaun. For this purpose the guard asked for in my No. 181-Police of yesterday will be more than ever necessary to prevent people from slipping away at night."

Extract paragraph 2 of a letter from the District Magistrate, Surat, No. 926-B. P., dated 1st May 1897.

2. Under instructions from the Commissioner, Northern Division, an observation camp is being constructed on the Damaun cordon line near the village of Chala for keeping under observation for ten days people of Damaun who wish to come into British limits. Exemptions will be made in the case of Portuguese officials producing a certificate that they are officials from the Governor of Damaun and being free from plague and also in cases where there is very urgent reason for letting the applicant pass, he being healthy. Mr. Judge, the Assistant Collector of Salt Revenue, who is at present encamped at Chala, having agreed to supervise the observation camp, has been made plague authority for that purpose.

Arrangements have also been made to allow two persons from Big and two from Little Damaun to cross the cordon for removing goods coming by rail to the Damaun Road Station. Cart loads of grass, grain, firewood and cattle for slaughter, specially imported for the use of Damaun, are allowed to cross the cordon under the same restrictions as those already imposed on cart loads of mhowra."

No. 40.

Telegram No. 1587, dated Simla, the 26th May 1897.

From—The Secretary to the Government of India, Home Department,

To—The Secretary to the Government of Bombay, General Department,

Your letter No. M. over 570-P., dated 14th instant, regarding arrangements to prevent plague being imported from Damaun. Government of India entertain strong objections to cordon which has been drawn between Damaun and British territory for the purpose of preventing communications from the former place. They consider that proper course is to institute system of medical inspection under commissioned medical officer who should have authority to stop all

persons who appear suspicious by reason of their symptoms or the dirty appearance of themselves, their clothes or effects. To carry out this policy it is essential that there should be segregation camps capable of accommodating suspicious persons of all classes, and Government of India will be glad to learn for how many people accommodation has actually been provided and whether such accommodation is sufficient. They are also of opinion that restrictions as to transport of goods should be removed.

No. $\frac{P.}{759-P.}$, dated Poona, the 17th June 1897.

No. 41.

From—J. DE C. ATKINS, Esq., I.C.S., Secretary to the Government of Bombay, General Department,

To—The Secretary to the Government of India, Home Department.

In continuation of my letter No. $\frac{M.}{370-P.}$, dated 14th May 1897, I am directed to forward, for the information of the Government of India, the accompanying copy of Memorandum by the Commissioner, Northern Division, No. $\frac{Police}{205}$, dated 6th instant, relative to the danger of British territory being infected with plague from Damaun.

Dated Camp Tithal, the 6th June 1897.

Memo. by F. S. P. LELY, Esq., Commissioner, Northern Division.

Various complaints have been made through several channels by the Portuguese authorities against the preventive measures adopted by the British Government against plague, but I submit the time has come when strong representations should be made in the reverse direction. We have far more reason to complain of them than they have to complain of us.

2. The position is briefly this. On the 4th March the first case of plague occurred in Damaun, and it rapidly spread until the daily mortality in a town of 8,000 people is said to have been 60 to 70. Up to this day the Government have done practically nothing to check its course. The Governor and all his responsible officers have persistently shut themselves up in the Fort and have done nothing personally. The only officer who ever visits the plague stricken area is an "Administrator," who has no power to make himself felt and is virtually only a reporter. The medical attendance is most inefficient. A doctor makes hurried visits every day from the Fort to the plague hospital, and a gentleman sent expressly from Goa has returned, being unable to get on with the authorities. Segregation is ordered but never enforced except in the case of friendless and low caste people who have no influence. Disinfection is a mere pretence. The whole working staff in Lower Damaun consists of

the relevant portions of a memorandum No. Police-212 of June 11th, 1897, by Mr. Lely, the Commissioner, Northern Division, and a copy of the plan of the Damaun Frontier which accompanied it. For a fuller understanding of the geographical position I am to invite reference to the trigonometrical survey sheets. The area referred to in Mr. Lely's memorandum lies on the west coast between $20^{\circ} 15'$ and $20^{\circ} 40'$ N. L.

2. The Northern Division, of which Mr. Lely is the Commissioner, comprises the districts of Thana and Surat, the seaboard of which has been so terribly ravaged by the plague. Now, happily the plague has ceased to manifest itself in epidemic form in either of these districts, but for months past the struggle to keep in check and then stamp out the disease has taxed the ingenuity and resources of Government and their officers to the utmost. In this period of difficulty and anxiety there has been, I am to inform you, no officer who has shown greater determination, more varied resources and sounder judgment than Mr. Lely. In effecting measures which have necessarily caused great inconvenience, no one has succeeded better in carrying with him and securing the co-operation of the people themselves. No one has shown greater anxiety to temper the rigour of rules when practically feasible. Mr. Lely therefore is an officer who not only possesses in common with several other officers in this Presidency, a thorough practical knowledge of the general nature, the effects and the means of combating the plague; but who has special qualities of judgment and temper that make his advice of the very highest value.

3. At ordinary times the communication between the British villages and those in the territory of Damaun is free and constant; not only by reason of the contiguity of the villages and the kinship and caste brotherhood of their inhabitants, but because a large number of persons habitually go from British into Damaun territory to drink the liquor which is much more cheaply bought there than at the shops on the British side of the frontier. One of the great lessons of the spread of the plague in Western India is that its cause is almost if not exclusively the movement of people out of infected into uninfected areas. When once Damaun became infected therefore the danger to the villages of the Pardi Taluka became extreme.

4. Mr. Lely has shown with what remarkable success the people of that Taluka had protected themselves against infected British villages; he has shown how the Damaun authorities attempted to protect their territory and how owing to administrative weakness they failed. The British authorities had then a double object lesson before

them: on the one hand, the success of an efficient system of observation and detention of suspicious persons; on the other, the terrible danger of a lax and inefficient system. His Excellency the Governor in Council fully concurs with Mr. Lely that if at this time the local British officers had failed to act with vigour and determination, they would have much to answer for.

5. In the telegram to which I am now replying it is stated that the Government of India entertain strong objections to the cordon which has been drawn between Damaun and British territory. It is possible that all the circumstances of the case are not fully understood. I have commented on the freedom of communication at ordinary times; this however is personal communication; for customs purposes there exists a preventive force which patrols the frontier to prevent the illicit transport of commodities. This frontier is thirty eight miles in length and can be easily crossed at any point. The cordon is in fact merely the use of the existing force with some temporary addition to prevent persons crossing the frontier in such a way as to evade observation. Without this precaution whether the whole of the Damaun territory or only portions of it are regarded as an infected area and whether all or only certain persons coming from that infected area are to be regarded as suspicious, there will be no means of watching all who cross the frontier and of detecting those who are suspicious and require to be detained.

6. The account of the system of detention as now worked given in paragraph 10 of Mr. Lely's memorandum shows that none of the measures enforced are open to serious objection. They do not attempt the stringency of measures allowed by the Venice Sanitary Convention of 1897, in Part III of which it is laid down that "each Government is at liberty to close its frontiers to passengers and goods." It will also appear that the restrictions on the transport of goods are only such as are necessary to prevent the conveyance of infection. Goods are allowed to be transported without restriction provided arrangements are submitted to, which prevent the passage of infected carts and drivers into British territory.

7. It would no doubt be possible, were they available, to appoint Commissioned Medical Officers to various points on the frontier to stop suspicious persons. But this would not do away with the necessity for using the frontier force as the agency for directing all traffic into the channels where it must come under observation; and it would not, as the Commissioner shows, add very materially to the general convenience. It would, however, absorb one or more Commissioned Medical Officers whose services can be more usefully employed elsewhere, and it would involve the expense of erecting sheds, hospitals

and quarters that are strong enough to withstand the heavy monsoon weather of the Western seaboard.

Memo. No. 212-Police, dated 11th June 1897.

From—The Commissioner, Northern Division,

To—The Secretary to the Government of Bombay, General Department.

2. First of all the net results may be summarized. The Pardi Taluka is the southernmost part of the Surat District. The next railway station to it on the north is Bulsar where 901 plague cases have occurred. The next Taluka on the North is Bulsar, where in all about 1,600 cases have occurred. On the south is the thinly populated Mahal of Umbergaon in the Thana District, but beyond that the trunk railway runs through Dabanu, Bassein, and Salsette Talukas into Bombay, all of which country was reeking with the disease. In the month of March it broke out violently in Damaun. The deaths in Damaun town alone soon mounting up to 35 or 40 per diem in a population of about 5 to 8,000. Geographically this Portuguese possession is a part of the Pardi Taluka and occupies its south-west corner. Large numbers of British subjects cross the frontier every day to drink at the cheap liquor shops and then return to their homes. The people on both sides are closely connected by intermarriage and by business and keep up constant intercourse.

3. In the midst of all these fires the 58,245 people of the Pardi Taluka have remained unscathed. Only a single indigenous case of plague has occurred, and that was a ward by in the segregation hospital at Pardi. There have been 24 imported cases.

4. In the first place it should be noted that the defence has been and is largely the work of the people themselves. In the month of February the Commissioner being in those parts called meetings of the people in Pardi town and in Wapi, the next most important village and railway station. He explained to them that if they would escape the fate of Bombay they must themselves protect their hearths and houses, and that they should resolutely keep out every stranger until it was proved by observation that he was free from infection. This suggestion was taken up so warmly that the people prevented even the staff of the Divisional officer who had been on tour in infected villages of Bulsar from entering the town of Pardi. Round many of the villages a line has been drawn with religious ceremonies which could not be crossed by any stranger. No doubt the inclination is to treat every one as "suspicious" without further ado, but the spirit of selfhelp displayed is highly gratifying and greatly tends to lighten the work of Government officers. Government would hesitate to break it down and insist on the villagers receiving within their gates

in a time of epidemic a man whom they honestly feared to be dangerous. It would be a terribly highhanded thing to do, for no one can positively say at such a time who is or is not the bearer of infection.

5. The Collector's orders have supplemented the determination of the people. The main points have been as follows. For *Pardi town* and railway station ten days' observation for all suspicious persons under the eye of the local medical officer, an experienced and capable man. As a fact very few people are allowed to pass as free from suspicions. Also goods coming in from or going to infected places are bound to change carts and drivers on the way. Here, again, it was practically presumed that every place was infected until it was proved otherwise, and with reports of plague from every quarter this could scarcely be called unreasonable. The protection of Pardi was the chief object of the campaign at first, for it was the gateway of the Taluka. At the next most important railway station, Wapi (Damaun Road), there was a segregation hospital with a special qualified medical officer. At the next, Udwarda, there was also a hospital, and examination of passengers was made by the Patel with the assistance of local practitioners. At Bhilad it was done by the Patel. Meanwhile in all the villages the Patels were authorized to detain suspicious strangers at a distance for 10 days' observation. This as a fact was interpreted by the voluntary action of the people themselves to mean exclusion of all strangers except in special cases, and the result has been the saving of the district.

6. For some time Damaun territory was free from plague, and many refugees from stricken Bulsar being refused admission into British villages betook themselves in that direction. The Portuguese authorities had placed a cordon on the frontier to stop them, but it was corrupt and ineffective. Persons from Bombay and Bulsar carrying the plague in their clothes and kit were allowed to pass in, the consequence being that the fate which the people, aided by their Government, were resolutely warding off from themselves in the surrounding British territory, fell with terrible force on Damaun. At the end of February the crew of a ship who arrived from Karachi were allowed, in defiance of nominal rules, to land at night and a case soon after occurred among them. About the same time a woman who had come from Bulsar fell ill. From these beginnings the disease rapidly spread throughout the month of March, until in April it is credibly reported that in the small town of "Big Damaun" alone there were 60 to 70 cases per day.

7. The British villagers, though it would cause them inconvenience, wished to see all communication cut off, and if the position be

considered, it can scarcely be denied that if the local officers had not acted strongly, they would have had much to answer for. The constant intercourse going on with the stricken area for drinking, social and business purposes has been noticed above. Damaun town is very dirty and the annual home of cholera. The local authorities are so powerless that, if the Commissioner is rightly informed, they cannot even fine a sepoy without a reference to Goa. The police force is small and notoriously corrupt. The villages outside Damaun being almost all alienated, the Central Government is practically unable to enforce its orders in them even if it gives any. Lastly, His Excellency the Governor furnished the best evidence of his opinion about the right thing to do by absolutely segregating himself and his staff in the fort on the south side of the river. He stopped the ferry and so cut off all intercourse with his capital (Little Damaun) and the rest of his territory, receiving complaints and issuing orders by post only.

8. Fortunately there was to hand an admirable agency for protecting British territory in the persons of the Salt Preventive Force usually employed on the frontier to prevent smuggling. It was under the command of Mr. Judge, Assistant Collector of Salt Revenue, a most useful and reliable officer, well supported by Messrs. Dart and Smyth and later by Mr. Shepherd, all Inspectors of Salt Revenue. A sketch of the frontier is appended in which the red line shows the cordon as it is ordinarily maintained for salt and customs preventive purposes. For the sake of simplicity and economy it is straightened so as to leave outside two corners of British territory. As all British subjects were entitled to protection at such a time as this if it were possible to give it, the cordon was transferred to the real frontier (the blue line) to provide for the greater length of which the guard was increased by 60 men—from 260 to 320.

9. The plague preventive line was first established on the 30th March. At first the stoppage of communication was too absolute, but this was a fault on the right side. The mortality in Damaun was steadily increasing. The operations of the Portuguese Government against it were left to a force of one Jemadar of Police and 18 men. They substituted ashes as a disinfectant for lime. The Government charged a fee of 14 annas for registration of a death, but they took a bribe of 4 annas for allowing non-registration. Partly through corruption and partly through feebleness they allowed all classes to snap their fingers at the orders to segregate and disinfect. Consequently the hospitals remained practically empty while the people died in hundreds in their houses. The Musalmans would not even

let the so-called "Sanitary Officer" walk about the town. The following is written by Mr. Judge from personal observation:—

"The plague being left unchecked worked frightful ravages in the town, whole families were swept away, people died in the fields and were devoured by vultures, or on the sea shore, and were washed away to sea or in their houses and were left to rot there. Some were attacked with plague and no traces of them can now be found, robbery and arson became common, houses were looted without check, sheds burnt down, money lenders refused to trade and shop-keepers closed their shops. The people were in despair. On one occasion a gang of 1,000 men tried to force the cordon, but being firmly met by Mr. Smyth, an officer under me, with a body of armed men, and tactfully treated, they returned to Damaun for the purpose of seizing the ferry and attacking the Governor in his fort, to whose imbecility they attributed their misfortunes, and it was with the greatest difficulty that some leading men persuaded and cajoled them to abandon their designs. While these horrors were being enacted in Damaun the Governor and his staff, protected by all the available troops, remained inert and panicstricken in the Fort and never once put foot in Lower Damaun.

"Out of a population of about 8,000 souls, about 2,600 have been swept away up to the present."

10. The cordon arrangements have been much modified since the beginning, but they have now for some time been in force as follows:—

- (1) All Portuguese subjects are allowed to pass into Damaun without question, and also all others who have reasonable cause for going there. All are warned that they run the risk for having to remain under observation on their return, and this is an effectual check. The only classes who are prevented from entering Damaun territory are the British villagers who want to go to drink on the cheap and then return home. It would be madness to allow them to go to and fro, and they are peremptorily told they must stay at home during the present danger. They quite acquiesce in the reasonableness of this.
- (2) All persons not suspected, such as persons from Big Damaun where the Governor's Fort stands, are allowed to pass out of Damaun territory after medical examination, but all who come from Little Damaun and neighbouring villages are treated as *prima facie* suspicious.

Considering what a fostering sink of plague this area is, no other presumption is possible. For all suspicious persons comfortable residential sheds have been provided on the road as marked on the sketch map. They are provided with a provision shop, good well water, and isolated hospital for cases of sickness. Their clothes and kit are divided into two heaps—one to be burnt or sent back at the option of the owner, and the other to be disinfected by boiling. After selecting a suit of clothes that has been boiled and dried, the owner goes to a healthy shed and after taking a disinfecting bath he puts on the clean clothes and throws those he was wearing over the fence, whence they are taken up and boiled. He remains for 10 days under observation and is then allowed to go if found to be healthy. The Commissioner, on paying a surprise visit recently to the camp, found the inmates most cheerful and happy. No complaints were made. This is also the testimony of the Collector.

There was ample accommodation for those who had come up to date. At the moment there were about 75 in residence. To provide for a larger afflux at the beginning of the rains, preparation was ordered to be made for another shed.

- (3) On the passage of goods there is absolutely no embargo. Passes have been granted to 12 agents selected by Mr. Judge and the Governor of Damaun who are allowed to take delivery of parcels at the railway stations and bring them into Damaun. The only limitation on goods of any kind is that at the two frontier stations of Chola and Patherpunja they must change carts and cartmen. The Commissioner can certify the arrangements to be simple and effective. They are necessary to prevent infected carts and drivers from passing into British territory. As inspection is possible at only two nakas the traffic is limited to the two routes, but this causes no inconvenience at all, for under the Land Customs Act these are the only two roads open in ordinary times.

11. Finally the Commissioner begs to submit that—

- (1) Whatever precaution is taken, it cannot be enforced over 38 miles of open country without a cordon. Hence a cordon is absolutely necessary unless plague is again to be let loose.
- (2) Passage from Damaun through the cordon is only allowed to suspected persons on one route. To establish

observation camps at other points would involve more expense and would be less acceptable to the people because the supervision would be less efficient. The one route through Chola can be easily used by the whole of Damaun, and Mr. Judge and his assistants are able to permanently stay there and look after things.

- (3) Government may supply a Commissioned Medical Officer, but the advantage will not be obvious. The present medical officer knows his work and he acts with the immediate personal assistance of Mr. Judge. This supplies all the guarantee which would be afforded by a Commissioned Medical Officer and is less expensive. The Commissioner's own opinion is that the presence of Mr. Judge who has had many years' experience and moreover holds command of the salt sepoys is far more valuable than that of a young doctor new to the country. Supersession too would be a poor return for his excellent work.
- (4) It has been explained above that only those are detained who are reasonably regarded as "suspicious," that the camp of observation is quite large enough at present, and further provision is being made for possible further needs; and that no restriction exists on the transport of goods except what is in practice a slight precaution against the spread of infection.

No. 43.

No. 1788, dated Simla, the 7th July 1897.

From—The Secretary to the Government of India, Home Department,
To—The Secretary to the Government of Bombay, General Department.

I am directed to acknowledge the receipt of your letter No. 760-P., dated the 17th June, on the subject of the measures taken on the Damaun frontier to prevent the spread of plague.

2. I am to say that the Government of India are glad to learn that the originally stringent measures which were imposed against Damaun have been relaxed, and that they consider that the existing arrangements reported in your letter and enclosure are not open to objection. In particular I am to say that, as the Government of Bombay are satisfied with the medical arrangements at the inspecting station, the Government of India do not desire to press for any change in this respect.

3. I am, however, to remark that the present information is not in all respects complete. It does not show, for instance, when the

relaxations and improved arrangements were introduced, nor how many persons are allowed to pass without detention, nor does it answer the question contained in my telegram of the 26th May asking for how many persons accommodation has actually been provided in the observation camp. The Government of India consider that the Commissioner of the Northern Division should have furnished full information on these points in order that they and the Government of Bombay might be in the best position to judge how the arrangements are working.

4. The Government of India will also be glad to know that assurance the Government of Bombay have that the guard of 320 men, of whom not more than 150 could be on duty at the same time, have effectively guarded a frontier of 38 miles, and how the British villagers assisted in rendering the guard effective.

5. In conclusion I am to forward, for disposal, under the orders of the Governor in Council, a petition* from Ardeshir Sorabjee, Post Walla, purporting to be on behalf of the inhabitants of Lower Damaun, complaining against the arrangement on the frontier.

No. 1816, dated Simla, the 13th July 1897.

No. 44.

From—The Secretary to the Government of India, Home Department,

To—The Secretary to the Government of Bombay, General Department.

I am directed to refer to your letter No. 759-P., dated the 17th June, forwarding, for the information of the Government of India, a copy of a Memorandum by the Commissioner of the Northern Division relative to the danger of British territory being infected with plague from Damaun.

2. The Commissioner suggests that the Portuguese authorities should be asked to select a strong executive officer and to give him powers to disinfect the houses in order to prevent a revival of the pestilence. He considers that unless the Portuguese authorities can be induced to take this step, Damaun will probably remain a source of plague infection for years.

3. The Government of India agree that it is very desirable that steps should be taken to thoroughly clean and disinfect Damaun, and that unless this be done there will be danger of a recrudescence of the disease in Damaun spreading infection over the border. They will therefore be glad if the Government of Bombay will address the Governor General of Portuguese India on the subject and will endeavour to persuade him to cause the necessary measures to be thoroughly carried out.

No. 45.

No. 4377—2954-P., dated Bombay Castle, the 11th August 1897.

From—The Secretary to the Government of Bombay, General Department,

To—The Secretary to the Government of India, Home Department.

With reference to your letter No. 1788, dated 7th July 1897, I am directed to forward, for the information of the Government of India, the accompanying copy of a letter from the Commissioner, Northern Division, No 1591, dated 31st idem, regarding the measures taken on the Damaun frontier to prevent the spread of plague.

No. 1591, dated Ahmedabad, the 31st July 1897.

From—F. S. P. LELLY, Esq, I.C.S., Commissioner, Northern Division,

To—The Secretary to the Government of Bombay, General Department.

In reply to the questions put in the Government of India's letter

No. 1788* of 7th instant, forwarded under

* Herewith returned as requested.

your No. 998-P. of 18th idem, I have the honour to report as follows.

2. It is difficult to give the exact dates of the introduction of the various relaxations and improvements in the preventive measures against Damaun, as they were made from time to time as experience warranted. The whole of the present system, as described in my No. 212 of 11th June, was established before the date of the Government of India's telegram of 26th May.

3. Freedom to *bonâ fide* Portuguese subjects to enter Damaun was allowed almost from the first, but the Commissioner's first written order to that effect is dated 21st April. The camp of observation was established on 9th May under my letter to the District Magistrate, dated 21st and 27th April, which set forth the instructions of the Government of India. The free passage of goods coming by rail subject to the one condition mentioned in my report was ordered in my letter of 21st April to the District Magistrate. Agents to take delivery of goods, and the passage of cattle were appointed on 3rd May and preceding dates. On the 30th April intimation was personally given by Mr. Judge to the Governor of Damaun (1) that goods from the railway, and also grain, grass and fuel would have free passage subject to the one condition of change of cart and driver on the frontier, (2) that persons coming from the infected town of Damaun would be regarded as *primâ facie* suspicious, but would be given ample opportunity of proving themselves free from infection, and would, in case of their doing so, be allowed to pass.

4. The number of persons allowed to pass out of Damaun, without detention, is approximately 400 up to date.

5. As to the extent of accommodation provided, I was under the impression that the 10th paragraph of my report gave as accurate information as was possible in stating that there was ample room for those who had come, up to date, and that the number was then about 75. As the people, from choice, live together in family or caste groups and as much as they can in the open air, it is not possible to state its capacity in definite figures. The average number of inmates for the last three weeks for which I have received reports are 86, 34, 51, and for these there is ample room. Since my last visit the accommodation has been increased, and is now calculated to be sufficient for 100.

6. With regard to the questions asked in paragraph 4 of the Government of India's letter, I have the honour to quote the following from Mr. Judge's recent report :—

“Along the whole 38 miles to be guarded, a path, about 10 feet wide, was demarcated by boulders and clods of earth, and the path roughly cleared and made practicable for patrolling by night and day. Along this path there are 39 chowkeys taken into use (including 17 new ones), thus giving chowkeys about one mile equidistant from one another. The men off duty were not allowed to leave the chowkeys, excepting with leave from their Amaldar, and, as the chowkeys are in most cases visible from one another, this ensured a guard visible to each other in the day. At every mile two sentries were put on duty between each chowkey during the day, and consequently with the men off duty at the chowkeys at every 552 yards there was a man on watch during the day.

The whole force went on duty at night.

Advantage was taken of the conformation of the territorial frontier and the existence of two tidal rivers to decrease sentries in one direction and increase them in another, and along the principal part to be guarded, I was enabled to place eight men per mile and in the other about six men per mile at night and half these men went on sentry-go, while the other half went to sleep on the line at places selected by myself and equidistant from one another. By these means at approximately every $\frac{1}{4}$ of a mile there was a man asleep and likely to be awakened by persons or vehicles passing, and in the 440 yards between each sleeper there was a sentry patrolling. Where roads bisected the cordon, modifications were made by placing a chowkey or sentry post, etc., to guard them.

At every other chowkey there was an Amaldar placed whose duty it was to see that the men went on duty during the day, and twice every night he had to patrol over his sub-division of two miles called Naik's beat and see the sentries were alert. The line was again divided into four divisions called Jamadar's patrol and each division place

under a Jamadar (three Jamadars and one senior Havildar being utilized) who had to see that orders were carried out, occasionally visit the line, and once in every 24 hours either by day or by night at irregular hours go over the whole of their division. The line was again divided in two major divisions and placed under the Inspectors who had to visit their respective beats on four nights and two days during each week and at such irregular hours as they deemed fit.

The Inspectors, each, also had a small detective party under an Amaldar who could be utilized by being sent out to pay surprise visits along the line, or should any particular sentry or beat come under suspicion could be sent out quietly to watch behind the said sentry or beat, and arrest any one improperly let through. As such an arrest would lead to the dismissal of the offending sentry, and possibly to his prosecution, no sentry was safe if he attempted to accept a bribe.

* * * * *

You will thus see that the line being strongly guarded by sentries, about 1 to $\frac{1}{2}$ of a mile, constantly patrolled by Amaldars, and regularly visited by the supervising staff, it was absolutely impossible for persons to get across during the day unperceived and next to impossible for them to do so at night.

Now as all the roads were guarded, and as ordinary passengers would not be able to find their way over the fields at night and when in addition to finding their way, they would have had to evade a strongly guarded cordon, it will be seen that the task of crossing the cordon was, for ordinary persons, rendered impossible at night also even for healthy persons.

About 40 persons who attempted to evade the cordon at various times were detained and prosecuted and convicted.

The villagers assisted in making the patrol path and erected the "Kacha" mandwas required on moving the line forward to the territorial frontier.

No persons have been arrested as having evaded the cordon by villagers, but the patels, etc., were put on the watch for them and would have done so had the necessity arisen, as they and their villagers, after they realized the danger from contagion or infection, became extremely keen on keeping their villages "free from strangers."

The best proof of the efficiency of the cordon and the co-operation of the villagers is the immunity of the Pardi Taluka, and especially the frontier British villages when compared with the 3,000 cases of plague that have occurred within the Damaun territory.

Papers regarding the Inspection of the Railway Traffic.

INSTRUCTIONS OF THE GOVERNMENT OF THE PUNJAB REGARDING HOSPITAL SHEDS AND THE TREATMENT OF EUROPEANS AND EURASIANS.

No. 42, dated Lahore, the 16th January 1897.

From—H. J. MAYNARD, Esq., Junior Secretary to the Government of the Punjab and its Dependencies,

To—The Secretary to the Government of India, Home Department.

In continuation of my letter No. 19, dated the 17th of January 1897, I am directed to forward, for the information of the Government of India, a copy of

From—Inspector-General of Civil Hospitals, No. 34, dated 7th January 1897.

To—Inspector-General of Civil Hospitals, No. 38, dated 16th January 1897.

the further correspondence noted on the margin, reporting the measures to be taken for the removal from trains and isolation of European or Eurasian passengers found to have symptoms of bubonic plague, and containing suggestions for hospital sheds.

No. 34, dated Lahore, the 7th January 1897.

From—SURGEON-COLONEL D. O'C. RAYE, M.D., Inspector-General of Civil Hospitals, Punjab,

To—The Junior Secretary to Government, Punjab.

With reference to your letter No. 4 of the 5th instant, I have the honour to enclose a note which I have made showing the preliminary requirements for isolation and quarantine sheds. The contents of this note might, I think, be communicated to the authorities concerned in the case of Rewari and Bhatinda.

Suggestions for Hospital sheds.

I think that the hospital sheds might be 18 feet by 6 feet, with side walls 8 feet high, and a sloping roof, the centre pole of which would rise say 6 feet above the wall.

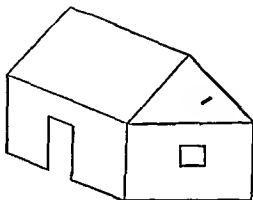
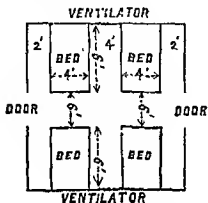
This would accommodate 4 patients, giving over 600 cubic feet of space to each. I would have a doorway 6 x 4 feet provided with a mat door in each side wall and an opening about 2 feet square, with a mat shutter at each end, placed about 5 feet from the ground.

Taking each bed as 6 x 4 feet, there would be 4 feet between the beds, while each would be 2 feet from the wall, and a central passage 6 feet wide would be provided between the feet of the beds.

These rough sketches show the general idea and how the beds would be placed. The walls should be of reeds or thatch, not mud. Such walls allow perfusion of air, and with sufficient bedding would not be too cold.

* A moveable screen of thatch, 6 feet by 5, should be kept in readiness, so that if a female patient were admitted, privacy could be effected.

* An observation shed for two beds should be also provided, say 18 feet by 8, with but one door.



A hut of similar construction about 12 feet square would be needed for the Hospital Assistant.

† A small thatch-work enclosure, without a roof, and about the size of an ordinary 'necessary' hut, should be placed a few yards from the hospital sheds.

† At first two beds in the hospital shed and one in the observation ward need only be equipped.

For each bed 2 pairs of sheets, 3 country blankets, 1 mattress and 1 pillow each filled with straw would suffice.

For European patients, a tent would be most suitable, in which a newar cot with a durrie, a rczai, 4 sheets, 2 pillow covers, 3 blankets and 2 cotton pillows would be at first necessary, also a chair, a commode, urinal, and 'necessary' tent.

No. 38, dated Lahore, the 16th January 1897.

From—H. J. MAYNARD, Esq., Junior Secretary to the Government of the Punjab and its Dependencies,

To—The Inspector-General, Civil Hospitals, Punjab.

In continuation of our endorsement No. 21, dated the 8th of January 1897, and with reference to your communication to this office noted on the margin, I am directed to say that (as suggested by you) the following instructions should be observed in case of European or Eurasian passengers

European Commissioned Medical Officers would be required to undertake duty of inspection except possibly at Bhusawal where railway doctor might undertake it.

It seems to the Government of India that inspection now performed at Sukkur by Assistant Surgeon might more usefully be performed at Ruk.

Central Provinces.—Itarsi and Bilaspur. The Government of India think that Commissioned Medical Officer should be appointed to former place and will place one at your disposal, if you are unable to appoint one. The work at Bilaspur should be done by Civil Surgeon.

North-Western Provinces and Oudh.—Naini and Jhansi. A European Military Assistant Surgeon should be appointed to Naini and a Commissioned Medical Officer at Jhansi. Government of India will provide men if North-Western Provinces Government is unable to do so. These arrangements need not supersede any subsidiary inspections of less complete character ordered by North-Western Provinces Government at other stations.

Punjab.—Government of India think that Commissioned Officer now at Khanpur should be removed to Raewind, and the one at Rewari to Bandikui. Also that hospital assistant at Sher Shah should be moved to Mahmud Kot as more suitable place. These arrangements need not supersede any subsidiary inspections of less complete character ordered by Punjab Government at other stations.

Agent to the Governor General for Rajputana.—Bandikui. The Government of India propose that Commissioned Medical Officer at Rewari should move to Bandikui. Please place yourself in communication with Punjab Government to secure his services.

Small hospitals should be erected at places where principal inspections take place for suspected cases and separate huts for accommodation of persons suffering from plague.

No. 303, dated Calcutta, the 4th February 1897.

No. 48.

From—J. P. HEWETT, Esq., C.I.E., Secretary to the Government of India, Home Department,

To—The Secretary to the Government of Bengal.

I am directed to forward a copy of the Epidemic Diseases Act passed today by the Legislative Council of the Governor General for the purpose of making laws and regulations, and of a notification under section 3 thereof conferring on the Government of Bengal powers under section 2 (1) and 2 (a) and (b).

2. The Governor General in Council does not at present propose to issue any regulations under section 2, and intends that Local Governments should issue them where they are required. I am, however, to say with reference to section 2, sub-section (2) (b), that His Excellency in Council is of opinion that it is essential that the medical inspection of passengers in trains coming from the direction of infected districts should be complete and that this can only be effected by the removal of the passengers to the platform and individual inspection there by the medical officer. For this purpose the Governor General in Council thinks that a Commissioned Medical officer should be appointed at Assansole, and I am to ask that, if His Honour the Lieutenant-Governor has no objection, this may be arranged for. The special inspection at Assansole need not interfere with any subsidiary inspections of a less complete character at other places which the Lieutenant-Governor may prescribe. The Government of India think that it would be undesirable to construct an isolation hospital at Assansole where there is a large community connected with the railway, but a small hospital for suspected cases, and separate huts for the accommodation of persons suffering from plague, should be provided at same place in the neighbourhood to be approved by the Lieutenant-Governor.

3. I am to suggest for His Honour's consideration whether it may not be desirable to give assistance to the Port Health Officer in the conduct of his duties at the present juncture, either by associating with him the Protector of Emigrants or in some other manner.

No. 49.

Telegram No. 309, dated Calcutta, the 4th February 1897.

From—The Secretary to the Government of India, Home Department,
To—The Agent to the Governor General in Rajputana.

Epidemic Diseases Bill passed to-day. Section 2.*—*Begins.*

—*Ends.* Under notification issued to-day the powers conferred by section 2, sub-section 2, clause (b), may be exercised by you. Governor General in Council desires to make the following remarks for your consideration. It is essential that medical inspection of passengers in trains coming from direction of infected districts shall be complete and this can only be effected by removal of passengers to platform and individual inspection there by medical officer. Regulations should provide for this. The Governor General in Council considers that subject to your opinion such inspection might take place at Bandikui. The Government of India propose that Commissioned Medical Officer at Rewari should move to Bandikui.

* See Appendix IV.

Please place yourself in communication with Punjab Government to secure his services. Small hospitals should be erected at places where principal inspections take place for suspected cases and separate huts for accommodation of persons suffering from plague.

LIST OF RAILWAY INSPECTION STATIONS.

No. 5

(Stations in charge of a Commissioned Medical Officer are printed in large type.)

Madras.

1	PERAMBUR	...	South Indian Railway.	5	KONDAPALLI*	...	Bezwada Extension.
2	PODANUR	...	} Madras Railway.	6	Tuticorin	...	South Indian Railway.
3	ARKONAM	...					
4	GUNTAKAL	...					

Bombay.

1	KALYAN	...	} Great Indian Peninsula Railway.	14	AHMEDABAD	...	} Bombay, Baroda and Central India Railway.
2	BHUSAWAL	...		15	Anand	...	
3	MANMAD	...		16	Surat	...	
4	HOTGI	...		17	Santa Cruz	...	
5	Byculla	...		18	Bandra	...	
6	DHOND	...		19	Grant Road	...	
7	Khandala	...		20	Palghar	...	
8	Sholapur-Bursi Road	...		21	Broach	...	} Southern Maharatta Railway.
9	Sholapur-Mohol	...		22	Hubli	...	
10	Kurla	...		23	LONDA	...	
11	Thana	...		24	RAJIWADI	...	
12	Mana	...					
13	POONA	...					

* Station transferred to Bezwada during the period of the pilgrimage to Juggannath.

Sind.

1	KARACHI CITY	} North-West- ern Rail- way.	5	KOTRI	} North-West- ern Rail- way.
2	KARACHI CAN- TONMENT.		6	SUKKUR	
3	DADU		7	SHIKARPUR	
4	RUK		8	HYDERABAD	{ Hyderabad- Shadipalli Railway.

Bengal.

1	KATIHAR	} Eastern Ben- gal State Railway.	3	KHANA	} East Indian Railway.
2	Damukdia		4	KHURDA ROAD STATION.	

North-Western Provinces and Oudh.

1	Agra	} East Indian Railway.	35	Banda	} Indian Midland Railway.
2	Allahabad		36	JHANSI	
3	Aligarh		37	Lalitpur	
4	Etawah		38	Orai	
5	Fatehpur		39	Farukhabad	} Rajputana- Malwa Rail- way
6	GHAZIABAD		40	Hathras City	
7	Tundla		41	Hathras Junction	
8	Mogahi Sarai		42	Muttra	
9	Mirzapur		43	Ganeshpur	} North-West- ern Railway.
10	Ajodhya	} Oudh and Rohilkhand Railway.	44	Meerut	
11	Akbarpur		45	Muzaffarnagar	
12	Benares		46	Haldwari	
13	Bareilly		47	Kathgodam (Co's Sec.)	} Rohilkhand and Kumaun Railway.
14	Bara Banki		48	Lakhimpur	
15	Cawnpore		49	Pilibhit	
16	Chandausi		50	Sitapur	
17	Daryabad		51	Ghaziपुर (by boat)	} Bengal and North-West- ern Railway.
18	Fyzabad		52	Bahraich	
19	Hardoi		53	G. n'a	
20	Hardwar		54	Gorakhpur	
21	Jaunpur	} Oudh and Rohilkhand Railway.			
22	Kotdwara				
23	Lucknow				
24	Lhaktar				
25	Malipur				
26	Moradabad				
27	Rae Bareli				
28	Roorkee				
29	Rudauli				
30	Ramnagar				
31	Rampur				
32	SAHARANPUR				
33	Shahjahanpur				
34	Unao...				

Punjab.

1	Sadikabad ...	North-West ern Railway, Karachi to Lahore.	31	Delhi ...	Delhi-Um- balla-Kalka Railway.
2	Rahim Yarkhan ...		32	Karnal ...	
3	Kotsamaba ...		33	Thanesar ...	
4	KHANPUR*		34	KALKA ...	
5	Feroza ...		35	Jagadhri ...	North-West- ern Railway, Delhi to Peshawar.
6	Chaudri ...		36	Umballa Cantonment	
7	Chanigoth ...		37	Umballa City ...	
8	Ahmadpur ...		38	Ludhiana ...	
9	Mubarakpur ...		39	Jullundur Cantonment	
10	Kulanchwala ...		40	Jullundur City ...	
11	Samasata ...	North-West- ern Railway, Sind Sagar System.	41	Amritsar ...	Amritsar- Pathankot Branch, North-West- ern Railway.
12	Bahawalpur ...		42	Meean Meer East ...	
13	SHER SHAH ...		43	Lahore ...	
14	Mooltan Cantonment		44	Gujranwala ...	
15	Mooltan City ...		45	WAZIRABAD ...	Jummoo Ex- tension, North-West- ern Railway.
16	Chichawatni ...		46	Gujrat ...	
17	Montgomery ...		47	JHELUM ...	
18	RAEWIND ...		48	Rawalpindi ...	
19	Meean Meer West ...		49	Khushalgarh ...	Jummoo Ex- tension, North-West- ern Railway.
20	Ghazi Ghat ...		50	Hasan Abdal ...	
21	Muzaffargarh ...	Rajputana- Malwa Rail- way.	51	Attock Bridge ...	
22	Darya Khan ...		52	Nowshera Cantonment	
23	Kundian ...		53	Peshawar City ...	Jummoo Ex- tension, North-West- ern Railway.
24	Khushab ...		54	Peshawar Cantonment	
25	Rewari ...	Rewari-Fe- rozepore Railway.	55	Batala ...	
26	Gurgaon ...		56	Gurdaspur ...	
27	Hissar ...		57	PATHANKOT ...	
28	BHATINDA ...		58	Sialkot ...	Jummoo Ex- tension, North-West- ern Railway.
29	Ferozepore Canton- ment.	Jummoo Ex- tension, North-West- ern Railway.	59	Ranbirsinghpura ...	
30	FEROZEPORE CITY.		60	Tawi (Jummoo) ...	

* Disinfecting Station.

Central Provinces.

1	NAGPUR	...	} Great Indian Peninsula Railway.	8	Khandwa	...	Rajputana-Malwa Railway.
2	Harda	...		9	Bilaspur	...	} Bengal-Nagpur Railway.
3	Sioni (Malwa)	...		10	Raipur	...	
4	Burhanpur	...		11	Bina	...	Indian Mid-land Railway
5	Sohagpur	...		12	ITARSI	...	Bhopal-Itarsi Railway.
6	Narsinghpur	...		13	Jubbulpore	...	East Indian Railway.
7	Wardha	...					

Central India.

1	RUTLAM	...	} Rajputana-Malwa Railway.	3	SUTNA	...	East Indian Railway.
2	UJJAIN	...		4	Indore	...	Rajputana-Malwa Railway.

Rajputana.

1	AJMERE	...	} Rajputana-Malwa Railway.	12	Pindwara	...	} Rajputana-Malwa Railway.
2	BANDIKUI	...		13	Beawar	...	
3	Bhurlpore	...		14	Jeypore	...	
4	Ulwar	...		15	Phulera	...	
5	Khairthal	...		16	Rajgarh	...	
6	Kherli	...		17	Chittor	...	South Indian Railway.
7	Nusseerabad	...		18	Dholpur	...	Indian Mid-land Railway.
8	Bhilwara	...		19	Marwar Junction	...	} Jodhpore-Bikaner Railway.
9	Nadbai	...		20	Bickaneer	...	
10	Abu Road	...		21	Merta Road	...	
11	Nana	...		22	Jodhpore	...	

Baluchistan.

1	Dostan	...	North-West- ern Rail- way.	6	Kila Abdulla	...	North-West- ern Railway.
2	Chaman	...		7	SHARIGH*	...	
3	Hirok	...		8	Sibi	...	
4	Harnai	...		9	Quetta	..	
5	Mach	...					

Mysore.

1	BANGALORE CANTONMENT.	...	Southern Mahratta Railway.	3	Yasvantpur	...	Southern Mahratta Railway.
2	Harihar	...					

Hyderabad.

1	Gulbarga	...	Great Indian Peninsula Railway.	4	Vikarabad	...	Nizam's Guar- anteed State Railway.
2	WADI	...		5	Hyderabad	...	
3	Raichur	...					

Berar.

1	Malkapur	...	Great Indian Peninsula Railway.	5	Murtizapur	...	Great Indian Peninsula Railway.
2	Shegaon	..		6	Badnera	...	
3	Akola	...		7	Chandur	...	
				8	Nandura	...	
4	Khamgaon	...	Khamgaon Railway.	9	Amraoti	...	Amraoti Rail- way.

* Principal Station transferred to this place from Sibi.

ORDERS FOR THE PROTECTION OF BOMBAY AGAINST CUTCH.

Extract from the Proceedings of the Government of Bombay, General Depart-**No. 51.**
ment, Nos. 4383—2956-P., dated Bombay Castle, the 11th August 1897.

READ—

Telegram to the Chairman, Bombay Plague Committee, No. M—612-P.,
dated the 2nd June 1897 :—

“Please draw up rules in consultation with Commissioner, Customs and
Port Health Officer for quarantining vessels from Cutch Mandvi and
neighbourhood under Quarantine Act of 1870.”

Telegram to the Government of India, Home Department, No. M.—613 P., dated the 2nd June 1897:—

"It is considered urgently necessary, in order to prevent re-infection of Bombay, to quarantine at Bombay under Act of 1870 vessels bringing passengers from Cutch Mandvi and neighbourhood. Preparation of necessary rules has been ordered in anticipation sanction."

Telegram from the Government of India, Home Department, No. 1654-Sanitary, dated the 5th June 1897:—

"Your telegram M.—613-P., dated 2nd, quarantine at Bombay against vessels bringing passengers from Cutch. Government of India consider it desirable that Bombay Government should issue order under Epidemic Diseases Act enforcing, in respect of Cutch, measures prescribed for vessels from infected ports in paragraph 12, my letter 1623, dated 1st, forwarding Venice Convention

Telegram to the Chairman, Bombay Plague Committee, No. M.—665-P., dated the 6th June 1897.

Letter from the Chairman, Bombay Plague Committee, No. 3769, dated the 7th June 1897:—

"With reference to your telegram No. 612-P. of the 6th instant, I have the honour enclosed proposals for quarantine for Cutch vessels observing that though steamers have ceased touching at Cutch Mandvi, certain steamers touch at Salaya, a point easy of access from Cutch Mandvi; further, in connection with the foregoing, that to ensure inspection of Cutchis who entrain above Ahmedabad or at that station, a careful inspection should be made of all downward railway traffic there."

Letter from the Chairman, Bombay Plague Committee, No. 3798, dated the 8th June 1897:—

"The exodus from Cutch Mandvi to Bombay which, until recently, was all by boat will, when the rains set in, it is anticipated, be by way of Wawania to Mandvi and thence to Bombay by rail. Owing to the fact that it is not possible to so carefully examine passengers by rail as by sea, it is feared, that the exodus may be a serious menace to Bombay during the rains.

"2. I beg, therefore, to suggest to Government that a quarantine camp be established at Ahmedabad. At this camp all passengers from west of Wadhwan should be detained eight days as is now done in Bombay for all Cutch Mandvi people arriving by steamer. The camp should be capable of holding at least 500 people, might be constructed of bamboos, jowlis and mats, as has been done in Bombay.

"3. I am therefore to ask the decision of Government in the matter."

Telegrams to the Commissioner, N. D., and the Political Agent, Kathiawar, No. M.—697-P., dated the 10th June 1897:—

"In view quarantine of Cutch vessels in Bombay, take special measures of observation at Ahmedabad, Wadhwan, &c., against arrivals from Cutch direction."

Baluchistan.

1	Bostan	...	North-West- ern Rail- way.	6	Kila Abdulla	...	North-West- ern Railway.
2	Chaman	...		7	SHARIGH*	...	
3	Hirok	...		8	Sibi	...	
4	Harnai	...		9	Quetta	...	
5	Mach	...					

Mysore.

1	BANGALORE CANTONMENT.	...	Southern Mahratta Railway.	3	Yasvantpur	...	Southern Mahratta Railway.
2	Harihar	...					

Hyderabad.

1	Gulbarga	...	Great Indian Peninsula Railway.	4	Vikarabad	...	Nizam's Guar- anteed State Railway.
2	WADI	...		5	Hyderabad	...	
3	Raichur	...					

Berar.

1	Malkapur	...	Great Indian Peninsula Railway.	5	Murtizapur	...	Great Indian Peninsula Railway.
2	Shegaon	...		6	Badnera	...	
3	Akola	...		7	Chandur	...	
				8	Nandura	...	
4	Khamgaon	...	Khamgaon Railway.	9	Amraoti	...	Amraoti Rail- way.

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Telegram from the Political Agent, Kathiawar, No. 314, dated the 11th June 1897 :—

" 24 hours' detention, disinfection clothing in force Wadhwan since 1st May. Cutch people more likely come across inner Gulf. Observation camps established at all routes. Should plague break out Bhuj, propose closing all routes across the Runn after due notice. Please wire as soon as any indigenous case occurs Bhuj."

Telegrams to the Commissioner, N. D., and the Political Agent, Kathiawar, dated the 11th June 1897 :—

" In continuation M.—697-P. Can you devise means for detecting all arrivals from Cutch Mandvi, and if necessary, detaining them in camps of observation. Ask Political Agent, Cutch, for all assistance he can give."

Telegram from the Political Agent, Kathiawar, No. 317, dated the 11th June 1897 .—

" Observation Camps have existed for some time at all entries into Kathiawar by sea and land from Cutch ; medical inspection, disinfection, eight days' detention."

Demi-official letter from the Chairman, Bombay Plague Committee, dated the 16th June 1897, to the Private Secretary to His Excellency the Governor :—

" Your letter of 11th June, with accompaniment (telegram of 5th June, we have carefully considered the matter, and we look at it in this way.

" 1. Quarantine can be imposed if a ship has touched at an infected port or is itself infected.

" 2. The vessels which now bring Cutch Mandvi people do touch at Salaya, which is itself a heavily infected port, and it was to stop that traffic that the quarantine rules against vessels were proposed. During the rains no Cutch Mandvi people can arrive by sea in any Karachi vessels except the ones that call at Salaya, as steamers will not put in at any Cutch or Kathiawar ports except Salaya, and even that port is a dangerous one in the south-west monsoon. Therefore there need be no quarantine against Karachi vessels unless they touch at Salaya.

" 3. As, however, Shepherd and Company have now decided only to run one steamer a fortnight from Karachi *via* Salaya; and as the Venice Conference Rules apparently do not, even in the case of vessels less than ten days out from infected port, contemplate strict quarantine against the vessel itself, we think that our proposal to quarantine vessels from ports between Karachi and Diu may, for the present, be shelved, and passengers from such ports be treated as now, *i.e.*, segregation in camp on shore, and vessels given pratique after disembarkation of the passengers. The fact also that vessels conveying infected people and cargo should not be treated more severely than trains under similar circumstances should be taken into consideration.

" 4. It should, however, be remembered that after the cessation of the rains free communication will again take place between Bombay and all Cutch and Kathiawar ports, and it would be well if rules were drawn

up and held in readiness for future contingencies; and these rules should be on lines which, whilst permitting quarantine of the vessel also empowers the removal of that quarantine when passengers have been removed. The above, I think, will meet the case and keep us prepared for any emergency."

Letter to the Commissioner of Customs, Salt, Opium and Abkari, No. P—860-P., dated the 1st July 1897 :—

"I am directed to forward the accompanying copy of a letter from the Chairman, Bombay Plague Committee, dated 16th instant, on the subject of the protection of the port of Bombay from plague infection from Cutch ports and to request that the necessary rules may be drawn up, in consultation with such officers as you may deem necessary, as suggested in the concluding portion of the Chairman's letter."

"Memoranda to the Chairman, Bombay Plague Committee, the Commissioner, N. D., and the Collector of Ahmedabad, No. P.—902-P., dated the 7th July 1897 :—

Forwards, for information, the following copy of a memorandum of the measures for protecting the Kathiawar State from plague infection from Cutch :—

"In view of the recent virulent outbreak of plague in the Native State of Cutch, it has been necessary to take special precautionary steps to prevent the introduction of plague into other parts of the Presidency. At the commencement of the outbreak the principal danger lay in the infection being carried by passengers leaving Cutch ports by steamer or craft, and measures were accordingly adopted to detain under observation all persons arriving at Bombay, Karachi, and other ports in the Bombay Presidency, who might, in the opinion of the local Plague Authorities, be considered 'suspicious.' It has also, however, been found necessary to consider the means that should be adopted for watching and regulating the traffic from Cutch into Kathiawar by the following routes, which were available :—

<i>Cutch Side.</i>			<i>Kathiawar Side.</i>	
1. Mandvi	...	...	to	Porebandar.
2. "	...	...	"	Dwarka (Baroda).
3. "	...	...	"	Salaya (Jamnagar).
4. Mandvi and Mundra	...	"	"	Bedi Bandar (Jamnagar).
5. Mundra, Anjar and Tuna	...	"	"	Jodiya (Jamnagar).
6. Anjar, Rohar and Janghi	...	"	"	Wawania by boat (Morvi).
7. Janghi	...	...	"	Wawania by land (Postal route).
8. Shikarpur	...	...	"	Lakhiasar " (Malia).
9. Manaba	...	...	"	Vinasar (Morvi).
10. Wagad	...	...	"	Tikar (Dhrangadhra).

Camps of observation were established at Routes Nos. 3 to 9 for the disinfection of clothing and the detention for eight days of all arrivals who were considered suspicious. Routes 1, 2 and 10 were closed altogether. With the advent of the monsoon it is necessary to concentrate the 'observation' arrangements and the staff employed, and the Political Agent, Kathiawar,

has replied that it has been decided to close all the routes except Nos. 4, 5, 6 and 7 with effect from the 1st July 1897."

Letter to the Chairman, Bombay Plague Committee, No. M.—574-P., dated the 29th May 1897 :—

"With reference to my telegram No. M.—214-P., dated 20th April last enquiring whether you could arrange for five days' quarantine against vessels arriving from Cutch, I am directed to request the favour of information as to what action was taken thereon in order that any requisite sanction may be formally given."

Letter to the Chairman, Bombay Plague Committee, No. P.—1064-P., dated the 27th July 1897 :—

"I am directed to invite attention to my letter No. M.—574-P., dated the 29th May last, and to request that information as to the action taken as regards quarantine (or a substitute therefor) in Bombay against arrivals from Cutch may be furnished so as to admit of the subject being formally brought on the records of Government."

Letter from the Chairman, Bombay Plague Committee, No. 4922, dated the 29th July 1897 :—

"In reply to your letter No. P.—1064-P., dated 27th July 1897, I have the honour to report that, on receipt of your telegram No. M.—214-P., of 20th April, I communicated with the Commissioner of Customs, the Chairman, Port Trusts, and the Port Health Officer regarding the steps to be taken for quarantining vessels from Cutch Mandvi; and I beg to attach a copy of the Rules which were then drawn up."

RESOLUTION.—These papers may now be recorded.

2. The Chairman of the Bombay Plague Committee should be informed, with reference to Rule 4 of the rules forwarded with his letter No. 4922, dated 20th July 1897, that Government rely on him to submit, in good time, for approval, the rules for quarantine against Cutch which he has proposed to draw up and hold in readiness for future contingencies.

NOTE OF INSPECTION BY SURGEON-MAJOR-GENERAL WARBURTON, OFFICIATING DIRECTOR-GENERAL, INDIAN MEDICAL SERVICE.

No. 331, dated 4th April 1897.

No. 52.

I beg to submit the following note on my recent visits to first class plague inspection stations.

1. *Khana*.—I arrived at 5-11 P.M. and left at 6-20 P.M. on 24th March. Surgeon-Captain Dyson, Sanitary Commissioner, Bengal, and Surgeon-Captains Calvert and Jay-Gould, and Surgeon-Lieutenant Peck, the three officers posted here for inspection duty, met me at the station and showed me over the segregation camp, a very accurate

description of which, together with inspection and disinfecting arrangements, etc., is given in the accompanying note by Surgeon-Captain Dyson. The distribution of water by pipes and more efficient steaming arrangements will shortly be completed.

There had been 364 admissions to date and there were 22 suspects in the camp at the time of my visit, two of whom were in hospital, one suffering from pneumonia and the other from chicken-pox.

I saw the passengers in the 6-20 P.M. train inspected and was satisfied with the thoroughness of the inspection. Seven first and second class and 363 third class passengers were examined. No complaints were made.

So far no cases of plague have been discovered.

The lowest number of passengers inspected on any one day was 1,799 and the highest 4,067.

The lighting arrangements were defective, but electric light will soon be in operation at a special inspection platform which was nearly completed and at which only trains from up-country will stop.

2. *Manikpur*—I reached this station at 6 P.M. on the 25th and remained there till 9-14 the next morning.

Only two trains from the Bombay direction—one at 7-24 A.M. and the other at 7-5 P.M.—are examined each day. There are no night trains. I was present at the inspection of two trains, the total number of passengers examined being 360, of whom about 15 per cent. were from the Bombay Presidency.

The examining staff consists of one Commissioned Medical Officer, Surgeon-Lieutenant Dawes, and a native female nurse; the former examines all the men and feels the pulses of the females, whose examination is completed by the nurse. The examinations were carefully made. There were no purdah women and no complaints.

One hospital assistant is in charge of the segregation camp and is present at inspections to take over any suspects or plague cases that may have to be detained. The camp consists of tents and huts for Europeans and natives with hospital properly isolated, but as only two suspects had so far been detained, the hospital assistant has had little to do. The small number of "suspects" at this station is probably due to effective inspections at Jubbulpur and Itarsi.

The drinking water is here the great difficulty. Europeans get theirs from Allahabad and natives use water from the railway well and a neighbouring tank, both of which are drying up. The station is badly lighted.

The medical officer keeps no diary. I have directed him to do so, entering the number of passengers examined each day, especially

noting the number from Bombay and to send a copy of the diary each week to his superior officer.

The staff is sufficient and no new passenger is allowed to enter the train till the inspection is completed.

3. *Itarsi*.—Surgeon-Colonel Hutcheson, Sanitary Commissioner, Central Provinces, joined me at Jubbulpur, where I learned there is a platform inspection of all passengers from the Bombay direction, conducted by a Native Assistant Surgeon and hospital assistant, but I did not consider it necessary to remain and see how it was done. We reached Itarsi at 6-45 A.M. on 27th and left again at 9-40 A.M.

The staff here consists of a Commissioned Medical Officer, Surgeon-Captain Bourke, a female hospital assistant for examining passengers, a Native Assistant Surgeon and Hospital Assistant for camp and other duties. Hospital and segregation arrangements for Europeans and natives are sufficient, except that a hospital for women is required, and the camp is well situated and water-supply satisfactory. There is an incinerator for the destruction of excreta and other infected substances. There are no means of disinfecting clothing or bedding except by boiling, but so far suspected articles of this kind have been burned. I have suggested that some clothing and bedding should be kept in stock to replace any destroyed.

There were 10 men and 3 women suspects in camp, and since 17th February, when Dr. Bourke assumed charge, 49 have been detained; none of these have developed into plague cases, though a plague case, which proved fatal, was taken out of the train on February 16th. Before that 10 or 12 cases are said to have occurred, but the information is not reliable and there are no records.

Three trains are examined here daily, at 8-10 A.M., 4-35 P.M. and 9-49 P.M., so that there is no night duty. Dr. Bourke calculates that about 500 passengers are examined daily. I saw the examination of the 8-10 train in which were 121 passengers and was satisfied with it. I also examined on my return on 30th in the 4-35 P.M. train. On this occasion the carriages had not been locked at the last stopping place, and passengers were able to get out before examination. I drew attention to this.

I discovered at this station that passenger carriages are attached to goods trains on various railway lines and not being scheduled the passengers thus conveyed are likely to evade inspection.

4. *Bhusawal* was reached at 5-3 P.M. on 27th and I remained there till 9-35 P.M.

Four trains are inspected daily—at 8-20 and 9-16 A.M. and 6-40 and 9-5 P.M. No night trains. About 700 passengers are examined each day.

The staff consists of one Commissioned Medical Officer, two Military Assistant Surgeons and five hospital assistants, and 1 found hospital assistants assisting at the inspections. I saw the two evening trains examined. The inspections were carefully performed.

I also visited the segregation camp, where there was accommodation for 20 plague cases and 5 suspects. There were 2 suspects under observation and three cases recovering from plague under treatment: 11 other cases of plague, making 14 in all, of whom 7 had died and 4 had been discharged cured.

The water-supply was said to be satisfactory, but the roofs of the huts were too thin to be a protection against the sun. This was about to be remedied.

The staff I considered unnecessarily large, but I learned afterwards at Kalyan that the Commissioned Medical Officer and two hospital assistants were under orders for transfer. One of the remaining hospital assistants might with advantage be replaced by a female hospital assistant as there is none here. I was examined here on the 30th in the 9-16 A.M. train. The examination appeared sufficient.

5. *Nagpur*.—We arrived here at 8 A.M. and left at 7-20 P.M. on the 28th. Three trains are examined here daily, at 8 A.M., 4-30 P.M. and 10 P.M. and from 400 to 500 passengers inspected.

The staff consists of a Commissioned Medical Officer, Surgeon-Lieutenant Hammond, a Native Assistant Surgeon, female hospital Assistant, and an hospital assistant. I saw the examination of the train in which we arrived and was satisfied with it.

I also visited the segregation camp which had been opened on 15th February with accommodation for 24 men and 8 women. At the time of my visit there were six cases under observation with four dependants. One case in hospital suspected to be plague but diagnosis not confirmed. Before the opening of the camp there had been two cases of plague with one death and one recovery, but no cases had occurred since.

There is a good water-supply and the huts suitable and well situated.

6. *Kalyan*.—As I found I had a day to spare, I decided to visit Kalyan and wired accordingly to the Surgeon-General with the Bombay Government. I arrived there at 6 P.M. and left again at 11-40 P.M. on the 29th.

I was by the courtesy of the Surgeon-General, to whom my thanks are due, met by Surgeon-Major Street, D.S.O., Deputy Sanitary Commissioner, and Surgeon-Captain Prall, Acting Secretary to the Surgeon-General, also by the two commissioned Inspecting Medical Officers, Surgeon-Lieutenants Walton and Dixon, and shown over the segregation camp. The morning report showed that there were 15 persons in the observation sheds and 19 cases in the plague sheds. From 13th February to 29th March 301 passengers have been detained. Of these 250 were suspects. About 98 appear to have been plague cases with 63 deaths, 16 discharged cured and 19 remaining under treatment. The above figures are, perhaps, not quite accurate as some deaths from other causes appear to have been mixed up with those from plague.

Twenty scheduled trains have to be examined daily, but I could not find out the number of passengers inspected.

The staff consists of two Commissioned Medical Officers, two Military Assistant Surgeons and nine hospital assistants, besides six sepoy attendants. There are 11 policemen in charge of the camp. An additional Commissioned Medical Officer is under orders to join, as the inspection work here is necessarily very hard and trying. I was present at the examination of three trains and found them carefully and properly conducted.

The camp is on ground which will become a swamp in the rains and I am told that the only suitable position in the neighbourhood is the military encamping-ground.

Efforts are being made to arrange for proper disinfecting apparatus.

The water-supply from a well is said to be good.

I learned here that another first class inspection station is about to be started at Manmad, the junction of the Dhond and Manmad Railway.

There is, I understand, ample room for a large segregation camp here, and should it be found necessary to detain all passengers from Bombay, this would be a suitable place for such detention.

7. *Jhansi*.—I arrived here at 2-55 A.M. and left before 4 A.M. on 31st, and I saw Surgeon-Lieutenant Robertson make a very thorough inspection of the passengers in my train. Five trains are inspected here daily—At 1-45 A.M. and 2-45 A.M. from Bombay, 3 A.M. and 12 noon from the Gwalior direction and 9-30 A.M. from Manikpur. Dr. Robertson has been here since February 8th.

The arrangements made for preventing passengers booking at Jhansi from entering the train before the inspection is completed are

defective. I have drawn the attention of the Inspector-General of Civil Hospitals to this, and some other defects observed.

MEDICAL STAFF AT BOMBAY RAILWAY STATIONS.

No. 53. Government of Bombay Resolution No. 1069—539-P., dated the 26th February 1897.

Letter from the Surgeon-General with the Government of Bombay, No. 2045, dated 25th February 1897 :—

"With reference to paragraph 2 of Government Resolution No. 751—249-P., dated 11th February 1897, I have the honour to forward the accompanying list showing the names of commissioned medical officers and medical subordinates deputed for inspection duty at Kalyan, Palghar, Ahmedabad, Bhusaval, Hotgi and Londa Railway Stations."

List showing the names of commissioned medical officers and medical subordinates deputed for inspection duty at Kalyan, Palghar, Ahmedabad, Bhusaval, Hotgi and Londa Railway Stations.

Kalyan Station.

Surgeon-Lieutenant H. J. Walton.

" " H. A. D. Dickson.

Military Assistant Surgeon W. P. B. Hart.

" " " A. G. Brown.

Senior Hospital Assistant Shaik Dadoo Miya.

" " " Bapoo Sawant.

First Grade " Eknath Babaji.

" " " Nathu Mal.

" " " Didar Bux.

Third Grade " Buswant Sing.

" " " Arjundas.

Third Grade Hospital Assistant Rahmatiali.

" " " " Gopal Prasad.

" " " " Narayen Sing.

Third Class " " Govind Rajaram.

" " " " Bhowanishankar Harnarayan.

" " " " Makund Sakharan.

" " " " Shaik Jamal Hoosein.

Mr. Waman Narayen.

" Bhugwant Gopal.

Palghar Station.

Surgeon-Lieutenant A. E. H. Pinch.

Military Assistant Surgeon P. H. Taylor.

Senior Hospital Assistant Mahomed Ghouse.

First Grade Hospital Assistant Ghous Sharif.

" " " " Shaik Abdulla.

" " " " Nagapa Pillay.

" " " " Sreenivasa Pillay.

Third Class " " Cooverji Rustomji Avari.

Ahmedabad Station.

Surgeon-Lieutenant A. W. R. Cochrane.

Military Assistant Surgeon F. E. Knight.

Assistant Surgeon J. D. Khambatta.

" " B. H. Nanavati.

" " N. K. Kalyanwala.

" " Khan Bahadur K. B. Kooper.

" " S. F. Chandhi.

Stipendiary Pupil Kalidas Goculdas.

" " Kashtur Tricum.

" " Harilal Nathabhai.

" " Jethalal Chimanlal.

" " Chunilal Parbhudas.

Civil Medical Pupil Manekrai Dolatrai.

" " " Rawasing Dulesing.

Such of these
officers as
are required
will be util-
ized as oc-
casion arises
to help at
the railway
inspection.

Bhusawal Station.

Military Assistant Surgeon C. W. Maine.

Third Class Hospital Assistant Khanderao Narayan.

" Grade " " Salij Ram.

" Class " " Namdeo Hari.

Hotgi Station.

Military Assistant Surgeon C. J. A. Meneaud.

" " " F. H. Brooks.

First Grade Hospital Assistant Mahomed Jaffer.

Third " " " Gokulchand.

" " " " Mahomedali Khan.

Londa Station.

Military Assistant Surgeon W. J. Masterson.

" " " L. P. Kenyon.

Third Grade Hospital Assistant Mulchand.

" " " " Nurullah.

" " " " J. P. Mascarenhas.

RESOLUTION.—The Surgeon-General's list is approved. He should be requested to issue all necessary instructions to the inspecting staff. The Chief Medical Officer of each station should submit a daily progress report to Government.

2. The Collectors of the districts concerned should be requested to render all necessary assistance.

3. Copy should be sent to the Public Works Department, Railway, for communication to the Railway authorities. Copies should also be sent direct to the stationmasters of the stations concerned.

MEDICAL STAFF AND ACCOMMODATION AT RAILWAY INSPECTION STATIONS.

No. 54.

Telegram Nos. 1252 to 1253, dated Simla, the 12th April 1897.

From—The Secretary to the Government of India, Home Department,

The Secretary to the Government of Bombay.

The Secretary to the Government of Madras.

The Secretary to the Government of Bengal.

The Secretary to the Government of the North-Western Provinces and Oudh.

The Secretary to the Government of the Punjab.

To—The Secretary to the Chief Commissioner of the Central Provinces.

The Secretary to the Chief Commissioner of Burma.

The Agent to the Governor General in Rajputana.

The Agent to the Governor General in Baluchistan.

The Agent to the Governor General in Central India.

The Resident at Mysore.

The Resident at Hyderabad.

In a despatch regarding plague, Secretary of State asks for information to make it clear that sufficient temporary hospitals with adequate staff doctors and nurses were promptly established at each plague centre, and that where available women doctors were employed

Chitor. Local Assistant Surgeon plague duty, Jeypore. Apothecaries, Abu Road, Phalera, and local Hospital Assistants, Erinpura, Jodhpore, Beawar, Bhurtpore, Dholepore, Ulwar, Bilwara, Tonk, Deoli, Bundi, Kotah, Jhalrapatan. At Nasirabad local Medical Officer.

Telegram, dated the 15th April 1897.

No. 60.

From—The Government of the North-Western Provinces and Oudh,

To—The Secretary to the Government of India, Home Department.

Your telegram 13th. In these provinces, excluding Mahamari, 20 cases of plague in all have been reported from ten districts, of which five only were treated in hospital; remainder died in trains or villages before medical relief was possible, case not being known till after death. We have no plague centres at present, but for use, in case of necessity, temporary hospitals have been constructed as follows:—For natives, temporary structures with division to separate the sexes, for four inmates at every municipality and at railway junctions of Manikpur, Moghal Sarai, Ghaziabad, and Tundla. For Europeans, temporary structures for two inmates at all headquarters of districts and at Manikpur and Ghaziabad. His Honour has recently ordered additional hospitals to be built, containing 56 beds in the large cities and from 30 to 32 in others, special provision being made for the privacy of females and families. Orders have been issued for licensing private or caste hospitals. Hospital accommodation can be extended readily to meet wants, should they arise. At present eleven Medical Officers, nine Assistant Surgeons, fifteen Hospital Assistants, six women doctors and nurses have been detailed for plague duty.

Telegram No. 178, dated the 15th April 1897.

No. 61.

From—The Agent to the Governor General, Baluchistan,

To—The Secretary to the Government of India, Home Department.

Your telegram 12th instant. Temporary plague huts have been erected at Quetta, Sharigh, Hirok, Bostan, and Chaman for accommodation of plague patients discovered in train at medical inspection. These huts and the medical inspections are under Assistant Surgeons at Sharigh and Hirok and under Hospital Assistants at other places. No special establishment engaged, as none has yet been necessary, and the Assistant Surgeons and Hospital Assistants are the men always stationed at the places named and are not specially detailed for plague duty. In Quetta, Special Sanitary Committee has been nominated from the Cantonment and Municipal Committees, who are now arranging sites for plague hospital and segregation camp, and

concerting other measures necessary in case of plague, appearing at Sibi, where there is strict medical inspection and detention for some days of plague suspects. Medical inspection is in special charge of Surgeon-Captain Browning, detailed for plague duty, assisted by an Eurasian nurse specially employed by Municipality. Plague huts have been erected, but no case has yet appeared.

No. 62.

Telegram No. 470, dated the 17th April 1897.

From—The Junior Secretary to the Government of the Punjab,
To—The Secretary to the Government of India, Home Department.

Your telegram of 13th. Following temporary plague hospitals have been established. At railway stations 59, ferries 2, and two road posts. Following persons detailed for inspection duty : Commissioned Medical Officers 27. Civil Assistant Surgeons 12, Hospital Assistants 40, uncovenanted Medical Officer 1, Native Doctors 2, Military Assistant Surgeons 4, Female Hospital Assistants 3; total 89. More female practitioners would probably be entertained if forthcoming. There is no plague in the Punjab at present, but all inspecting medical officers may be regarded as attached to the temporary hospitals at their places of inspection and would be on plague duty at those places if plague broke out.

Telegram, dated the 23rd April 1897.

No. 63.

From—The Secretary to the Government of Madras, Local and Municipal Department,

To—The Secretary to the Government of India, Home Department.

Your telegram 12th. No plague centres this Presidency, and so far temporary hospital and segregation accommodation provided only at railway inspection stations. At Guntakal, Perambur, Arkonam, Kondapalli and also at Tuticorin and Madras City. Medical staff on plague duty consists of:—three Commissioned Medical Officers, three Assistant Surgeons, two Civil Apothecaries, fifteen Hospital Assistants, and only one female medical practitioner at Tuticorin; but trained nurses are being deputed to other stations. This staff is in addition to medical officers and subordinates at seaports, who have been gazetted Port Health Officers under plague quarantine rules.

No. 64.

Telegram No. 43-C., dated the 23rd April 1897.

From—The Chief Commissioner, Central Provinces,

To—The Secretary to the Government of India, Home Department.

Your wire No. 1257 of 12th and reminder No. 1344, dated 20th. Two special temporary plague hospitals at Nagpur and Itarsi. At

former one Commissioned Medical Officer, one Assistant Surgeon, two Male and one Female Hospital Assistants. At latter one Medical Officer, one Assistant Surgeon, one Female Hospital Assistant. At both nurses entertained as required. Also temporary hospital accommodation at Jubbulpore and Bilaspur, and one Assistant Surgeon to inspect at each. Also at Khandwa and Bina one Hospital Assistant for inspection and emergencies.

Telegram No. 4, dated the 23rd April 1897.

No. 65.

From—The Resident at Mysore,

To—The Secretary to the Government of India, Home Department.

Your telegram, dated 12th. No plague cases have reached so far south as Mysore, and action up to date has been practically confined to inspection work in the Mysore State. No special staff has been detailed for plague duty, the idea being that the officials carrying on the inspection work could afford relief in an emergency until the occurrences of fresh cases rendered it necessary to organise a complete hospital staff. There are inspection stations at Harihar and Yaswantpur outside Bangalore on the Southern Mahratta Railway. At each of these places, where all trains from the north are examined, there are a hospital assistant, midwife, cook, blistry, and ward cooly, and sheds to accommodate six patients. There are also sheds at four other stations on this railway, which are in charge of the Hospital Assistant of the adjoining dispensary should cases occur. The necessary staff, male and female, could be at once either sent from Bangalore by train or taken from dispensaries in the neighbourhood should the necessity arise. The Senior Surgeon, Mysore State, is fully alive to the desirability of having female attendants for women sufferers. In most cases, however, the only attendants available would be Hospital Assistants for men and midwives or females on the vaccinating establishment for women. At Bangalore Cantonment the inspection arrangements are in charge of the Residency Surgeon; he is assisted by the Municipality male and female medical subordinates. Here also our endeavours are entirely protective. Temporary sheds have been provided for plague cases, and the necessary hospital establishment of male and female attendants could be provided at two hours' notice. The inspection arrangements are, I believe, thorough and all Medical Officers agree that they comprise all that is necessary. At present all local notifications under the Epidemic Diseases Act have been adopted by the Mysore Durbar, and district officials have ample powers thereunder to deal with any outbreak of plague in the interior of the State.

No. 66.

Telegram No. 122, dated the 23rd April 1897.

From—The Resident at Hyderabad,

To—The Secretary to the Government of India, Home Department.

Your telegram 12th instant, regarding plague arrangements in Hyderabad State. There are temporary plague hospitals at five railway stations—Gulbarga, Wadi, Raichur, Vikarabad, Hyderabad, where passengers are inspected. Gulbarga has one male and one female doctor and one Hospital Assistant. Wadi two male and one female doctors and three Hospital Assistants. Raichur one male doctor and one Hospital Assistant, Vikarabad Ditto. Hyderabad two male and one female doctors and one Hospital Assistant. In Hyderabad city and suburbs no plague hospitals constructed and no medical staff specially detailed to plague duty, but standing preparation against ordinary epidemic capable of prompt amplification if plague occurred. Sufficient female medical attendance available for Residency Bazaars, Secunderabad and Hyderabad contingent stations. No hospitals or other arrangements so far required. Rules under the Epidemic Diseases Act only issued on 10th instant for these areas and Berar. In Berar temporary hospitals established at nine inspecting railway stations—Malkapore, Nandura, Khamgaon, Shegaon, Akola, Murtizapur, Badnera, Amraoti, Chandur, where local Hospital Assistant inspects passengers. No special female agency detailed to this duty, but at Amraoti the Dufferin Hospital lady doctor available and Dufferin nurses at other municipal towns. There is no plague centre under this administration.

No. 67.

Telegram No. M. 295-P., dated the 6th May 1897.

From—The Secretary to the Government of Bombay, General Department,

To—The Secretary to the Government of India, Home Department.

Your telegram 1252, 12th April. In Bombay City there are three large plague hospitals, 11 Government temporary hospitals, and 27 private community hospitals, all with sufficient medical staff. Also Bombay divided into 10 districts, each with medical staff and six with special lady doctors, omitting subordinates. Medical staff consists of 14 commissioned officers, 2 merchant service men, 29 native doctors, 12 nurses from England, 18 nurses engaged in India, 18 Roman Catholic sisters, 4 Protestant sisters. In Poona City there are three large plague hospitals with medical staff and the Sassoon Hospital ordinary nursing staff; also three nurses from England. In Karachi plague hospital—2 commissioned officers, 4 subordinates, 4 Roman Catholic sisters, 1 lay sister, and 3 Zenana Mission ladies, two paid nurses; convalescent Hospital under same doctors; also 1 lady doctor and one paid nurse. Another hospital—one commissioned officer and subordinates, 1 paid nurse. Three temporary hospitals under

subordinates, but visited by commissioned and lady doctors; also 2 Government temporary hospitals under paid private doctors; also several temporary private hospitals for different communities superintended by commissioned officers. At Hyderabad plague hospital under Civil Surgeon, numerous subordinates, 4 European and 4 native women nurses. Hindu private hospital with considerable subordinate staff supervised by Civil Surgeon, 3 European nurses and Zenana Mission ladies. In Sukkur—2 hospitals; 2 commissioned officers with subordinates, 3 nursing sisters, 2 trained nurses, 3 probationers, 1 lady doctor, and Zenana Mission ladies. Extensive arrangements for Railway inspection. In Presidency proper—9 commissioned officers and 4 private doctors and 74 subordinates at principal inspection stations, but no lady doctors in Sind. At each inspection place a commissioned officer assisted, where possible, by a lady doctor or experienced female. In Mofussil generally plague hospitals are run on lines of civil hospitals. Further information will be furnished as collected.

NOTE BY SURGEON-CAPTAIN DYSON, SANITARY COMMISSIONER OF BENGAL, ON THE ARRANGEMENTS AT THE PLAGUE OBSERVATION CAMP AT KHANA JUNCTION ON THE EAST INDIAN RAILWAY.

Dated the 12th March 1897.

No. 68.

The accompanying plan of the quarantine encampment will explain how it has been laid out.

It will be seen that it is divided into three portions, *viz.*, (1) the plague hospital; (2) the contact camp; and (3) the suspect camp.

The plague camp consists of—

(a) two structures, 45' × 16", which are the native plague hospitals.

(b) six rooms, 10' × 10", for the families of the patients, and

(c) eight rooms, 8' × 10", for the hospital attendants.

There is also a small pukka house for European cases, and accommodation for mehters and domes with a separate clear water tank for their use.

A Horbury's iron latrine is provided, also Larymore's stool incinerator, and there is a pure water-supply from iron tanks. The water for these tanks is obtained from a pukka well, carefully covered in, by a lift and force pump, and is thence distributed to the tanks by iron pipes. Each tank is fitted with a brass turncock, and provided with a wash-out plug for purpose of cleaning and disinfection and a

covered-in manhole. There is accommodation for 40 plague cases. The beds are of iron, and thus can be quickly disinfected with a paraffin torch. *Thalas* and *battis* made of iron (Jail pattern) have been supplied for feeding purposes, as they also can be quickly disinfected by heat.

In the contact camp there are 75 huts (68 completed to date) 10' x 8', for two persons. There is thus accommodation for 150 persons. This camp also is provided with a Horbury's latrine and an iron tank for water-supply. It is surrounded by barbed wire fencing.

The suspect camp—75 huts, 10' x 8', at two persons per hut—provides accommodation for 150 persons. The camp is provided with a Horbury's latrine, and a pukka well is being rapidly constructed. The camp is surrounded with a barbed wire fencing.

Quarters for the Hospital Assistants and other officers are in course of construction.

A new shop for the *bunniah* is being built between the suspect and contact camps.

All the huts in the contact and suspect camps are numbered for convenience of registration.

Inspection.—The inspection staff consists of two medical officers of the Indian Medical Service and two lady doctors.

One medical officer and one lady doctor are on duty together. Owing to the number of trains passing through at night, no arrangement can give more than one night in bed out of every two. Hence the duty is very severe, and the inspecting staff will have to be increased, or a breakdown may be expected.

Daily roster.—The following table will show how the 24 hours are divided into watches so as to give each inspecting officer one night's rest out of two:—

Daily roster.

9th March 1897 ...	{	8 A.M. to 12 noon ...	{ Dr. Culvert. Miss Landcr.
		12 noon to 8 P.M. ...	{ Dr. Peck. Miss Anthoni.
		8 P.M. to 8 A.M. ...	{ Dr. Culvert. Miss Lander.

10th March 1897 ...	8 A.M. to 12 noon. ...	{ Dr. Peck. Miss Anthoni.
	12 noon to 8 P.M. ...	{ Dr. Calvert. Miss Lander.
	8 P.M. to 8 A.M. ...	{ Dr. Peck. Miss Anthoni.

Trains.—The following time-table gives the time and number of trains to be examined (Madras time is kept):—

Number of trains.	Time of arrival.	Number of 1st and 2nd class passengers.	Number of other class.	Plague cases.	Contact cases.	Suspect cases.	Medical officer's signature.	Lady Doctor's signature.
1	2	3	4	5	6	7	8	9
12 Down passenger ...	0-3	9	178	...	...	...	J. T. C. ...	H. L.
2 „ mail ...	3-33	12	75	...	...	...	J. T. C. ...	H. L.
134 „ express ...	4-35	15	176	...	...	...	J. T. C. ...	H. L.
6 „ passenger ...	6-10	4	973	...	...	1	J. T. C. ...	H. L.
10 „ mail ...	8-5	2	334	...	...	...	J. T. C. ...	S. L. A.
52 Local passenger ...	9-58	2	497	...	...	...	E. S. P. ...	S. L. A.
4 Down „ ...	14-2	16	496	...	...	5	J. T. C. ...	H. L.
222 Local mixed ...	16-50	...	89	...	...	...	J. T. C. ...	H. L.
8 Down passenger ...	18-17	4	478	...	...	...	J. T. C. ...	H. L.
Total ...	...	64	3,295	...	...	6		

Examination.—Pending completion of the new platform, the examination of passengers takes place at the station. All passengers

are required to alight and be examined—males by the medical officers and females by the lady doctors. A European station master, a European police sergeant, two head constables and nine constables attend each train. Of these, three constables are stationed on the up platform to see that no person gets out on the wrong side of the train. In addition there are a number of railway *khalasis* present to open locked compartments, assist passengers to alight, etc. If any one is contumacious and declines to submit to the examination, time is not wasted arguing with him, but he is locked in and the carriage is cut off, and put into a siding, he being liable to the railway company for any loss or inconvenience they may sustain on this account. On the arrival of the train, ropes with hooks attached are fixed on to both ends of the first carriage and are held tight by the police. Male passengers are ranged in one or two rows nearest the ropes and facing the train. Female passengers are ranged on the platform near the train and facing it; their backs are thus turned towards the men. It has, however, been decided to examine them in future between *purdaks* or *lanats*, so as to shield them altogether from the public gaze. Care is taken to avoid wounding their feelings in any way, and the police are not allowed to handle them at all. The police sergeant or station master having reported that the compartments are empty, inspection of each passenger and his ticket begins. In a large number of cases their axillæ femoral, inguinal regions, and parotid glands are examined, and the temperature of all suspicious cases is taken. Whilst the inspection of carriage No. 1 is being made, carriage No. 2 is emptied and the passengers prepared for inspection, and so on. After inspection passengers re-enter their compartments, women going first. No one is allowed to wander up and down the platform.

Suspects from Bombay.—Passengers' tickets are examined at Asansole. As a result of that examination, the Sub-Inspector of Railway Police, Asansole, wires in advance to the medical officer and the Inspector of Police at Khana Junction the number of Bombay passengers,

the class in which they are travelling, and in the case of third class passengers, the number of their carriage. The tickets of third-class Bombay passengers are made over to the guard of the train, and they themselves are put in the last carriage for easy disposal. Passengers from Bombay, Poona, or other infected centres "suspected" by the medical officers are detained, and with their baggage are handed over to a constable for safe custody until the examination of the train is

Railway carriage or compartment from which suspects are taken might be rapidly disinfected before being allowed to proceed. This need not take many minutes.

W. P. W.,—13-3-97.

completed. If the medical officer has any serious doubt about a case, he orders the carriage from which it is taken out to be cut off and immediately disinfected. On the departure of the train, the medical officer takes charge of the suspect's ticket, notes down the name, age, sex, caste, place of residence, and infected place from whence the "suspect" has come and the number of train from which he was removed. The station master on duty hands the Inspecting Medical Officer a slip showing the number of passengers examined (*a*) 1st and 2nd, (*b*) all other classes, (*c*) total. The inspection is then complete, and the train is allowed to go on.

Disposal of suspects.—The "suspects" and their effects are then handed over to the European police sergeant on duty with any special instruction the medical officer may desire to give, and the latter arranges for their escort to the camp.

The camp staff consists of—

1 Military Assistant Surgeon.

3 Civil Hospital Assistants and medical staff—cooks, bhistis, melters, etc.

On arrival at the camp the "suspects" are made over by the police constable to the Assistant Surgeon in charge, who tells them off to their proper camp, locates them in a numbered hut, provides them with bedding, *i.e.*, straw, mat, or *taktaposh* as desired, explains the rules of the camp, and finally leaves them in charge of the Hospital Assistant in charge of that particular camp. The Hospital Assistant examines them, takes their temperature, and is responsible that the first signs of any illness are reported, that they are present on various parades, and that their wants as regards water, food, etc., are attended to without hurting their caste prejudices. The information regarding the "suspects" noted by the Inspecting Medical Officer is made over to the camp clerk and duly entered in the "release diary" of the officer in charge of the camp, and their tickets are duly filed until their release.

Camp.—The camp is under the immediate control of the Assistant Surgeon, who parades the menial servants, tells them off for duty, inspects the latrines, trenching ground, water-tanks, etc., daily supervises the morning and evening roll-call of all quarantined persons, keeps a daily register, giving the names of all admissions, the camp and the number of the hut in which they have been placed, the date on which their clothes were disinfected, and how the suspects were finally disposed of. He also brings before the medical officer in charge each morning the persons who are to be discharged that day for a final examination by that officer, and finally hands them over

after discharge with their baggages and tickets duly countersigned to the Inspector of Police for escort to the railway station. He is also in charge of all stores and equipments and their issue, brings to the notice of the medical officer persons who are destitute and have to be fed at Government expense. He keeps a daily report book for the information of the medical officer in charge. The medical officer in charge being on inspection duty every other night and part of each day has to rely greatly on the Assistant Surgeon in looking after the camp. He, however, personally each morning, having given orders the previous evening, examines all suspects paraded for discharge, and, after satisfying himself as to their health, countersigns their railway tickets which have been filed in the office at the time of admission. Subsequently he inspects the camp in company with the Assistant Surgeon and Hospital Assistant, and sees all quarantined persons, listens to complaints, etc., etc. At the time of his parade all suspects are summoned by a gong and stand in front of their huts. To facilitate these orders being carried out by persons unaccustomed to discipline, the *bunniah's* shop is closed during this parade and open again immediately after it.

At present the camp contains no plague cases, and therefore also no contact cases, but it contains a number of coolies doing construction work. Under the above circumstances very strict quarantine cannot be enforced. Once, however, construction is finished, the various camps can, at any moment, be strictly segregated and communication stopped. On completion of the new *bunniah's* shop between the "suspect" and "contact" camps, separate hours will be fixed for the occupants of each camp to obtain their daily supplies. With a view to keeping the camps as dry as possible, suspects are not supplied with bathing water, but are allowed to bathe in the large tank at two separate ghats, constables being stationed over each ghat to prevent any water (which is not fit for consumption) being carried away for drinking or cooking purposes.

Police.—The police force on duty consists of—

- 1 European Inspector of the Bengal Police.
- 2 Sergeants of the Railway Police.
- 2 Constables of the Railway Police.
- 11 Head Constables of the Bengal Police.
- 72 Constables of the Bengal Police.

Of these, 2 sergeants, 4 head constables, and 18 constables are employed on platform duty in two batches, 3 head constables and 24 constables are employed on sentry duty in camp, and the remainder on miscellaneous duty, on escort, arms, lines and reserve. Only one

escape has taken place up to date. This suspect absconded on the 5th instant, was arrested at Dum-Dum on the 7th instant, and was back in camp in custody on the 8th instant.

Statistics.—Inspection began on the 15th February, and the average daily number of passengers examined is 3,027.

The total number of suspect passengers who have been detained in camp up to date is 273, and the maximum number quarantined on any one day was 135. These figures are largely due to the followers of the Gloucestershire Regiment, 71, and to two ships' crews paid off in Bombay, *viz.*, 43 and 33 respectively.

Disinfecting apparatus.—Pending the arrival of a more elaborate disinfecting apparatus, which will be ready by the end of the month the following arrangements have been made. A steam-boiler has been set up in which steam up to 50 lbs. to 100 lbs. pressure can be generated. Steam from this boiler is passed into an iron tank, in which the clothes to be disinfected are hung on iron rods. This is a "current steam" disinfector only, the tank not being made to stand pressure. The clothes are steamed for 20 minutes. Since the bacillus of plague is non-mobile, non-sporing, and is killed by exposure to a temperature of 60° C. for 5 minutes (Klein) or by exposure to a temperature of 80° C. (Kitasato), I believe the above procedure to be sufficient, provided too many clothes are not introduced into the tank at once. In practice it has been found that, owing to the trying nature of the work, the tank becomes very hot. The Hospital Assistant who has been placed in charge of the disinfection is inclined to overload it with clothes, so as to finish his work quickly and get away from the heat surrounding the engine and boiler. If the number of suspect cases should increase, we will probably have to obtain the loan of the services of a European non-commissioned officer or other European who may be trusted to implicitly carry out the orders given him, since the disinfection of clothes is important, and should be thoroughly carried out, and this under native supervision must always be a matter of doubt.

I attach copies of the general rules which have been prescribed for the guidance of medical officers in charge of quarantine camps in Bengal, and also for the disinfection of infected railway carriages.

General Rules to be observed by Medical Officers in charge of quarantine Plague Camps in Bengal.

1. The camps are to be divided into three parts, *viz.* :—

1. The plague camp. | 2. The contact camp.
3. The suspicious camp.

2. The plague camp, as its name implies, should be used as a hospital for actual cases of plague. In the vicinity of this camp there are huts for the accommodation of relatives and attendants of the sick.

3. In the contact camp all persons found travelling in the same railway carriage with a plague case should be segregated.

4. In the suspicious camp all persons who appear to be ill, but in whose cases a diagnosis cannot be arrived at immediately, should be segregated and their symptoms carefully watched.

5. In the event of a considerable number of people being segregated, care should be taken to keep each day's batch separate from the others.

6. Quarantine will last for seven days; the date of departure from an infected locality should be taken into consideration in this calculation.

7. The Inspecting Officer will meet all trains from up-country and will carefully inspect all the passengers. The railway compartments should be opened one by one, and the persons travelling in it should be locked in it again before examination of the next compartment is made. In this respect, however, the Inspecting Officer will exercise his discretion with regard to 1st and 2nd class passengers.

8. Rope barriers will be found useful for examination purposes.

9. An infected carriage must be cut off at once and thoroughly disinfected after the removal of the passengers to the various camps. The carriage should first be scraped down with soap and water, and then washed over with a solution of hyd. perchloride, 1—2,000.

10. All infected clothing, bedding and articles which cannot be readily disinfected must be burnt.

11. Registers must be kept in each camp showing the date of admission, name, age and sex, daily condition treatment and, finally the result, and a daily abstract of this should be submitted to the Sanitary Commissioner, Bengal.

12. On the death of any person the medical officer will make a careful inventory of any property he may have, and shall forward the same to the District Magistrate after thorough disinfection, if there is no relative at hand. Foul clothing should be burnt. The medical officer should use his discretion in this respect.

13. The plague excreta should be carefully disinfected with a solution of perchloride of mercury, 1—2,000. Sawdust should be added in sufficient quantity to allow of its being burnt.

14. Care must be taken to see that the dead are properly and completely disposed of.

themselves as will enable their future movements to be watched. If it were found that they had alighted to evade inspection, they would be sent on to the next inspection station. If, on the other hand, they had alighted to stay in the neighbourhood, the Local authorities would receive the information required to enable them to maintain the necessary watch over them.

2. The Government of India will be glad to be informed at as early a date as possible of the view of His Honour the Lieutenant-Governor of Bengal on this suggestion.

Telegram No. 1431, dated Nagpur, the 20th February 1897.

From—The Chief Commissioner of the Central Provinces,

To—The Secretary to the Government of India, Home Department.

Chief Commissioner approves suggestion made in your telegram No. 579, Sanitary, dated yesterday. If Government desire can be provided in local rules now under issue.

Telegram No. 757-C., dated Bikanir J. B., the 21st February 1897.

From—The Agent to the Governor-General in Rajputana,

To—The Secretary to the Government of India, Home Department.

Your telegram No. 580, Sanitary, dated 19th. Arrangements proposed place too much power in hands of ticket collectors and station masters, and persons required to give names and addresses can evade by giving false ones or going to a place other than that of address given. Effective watch could not be kept over persons in rural tracts; proposed arrangements might, however, be tried in British India. I would suggest regulation that no person shall book from place in infected area except to place where platform inspection held at latter place, persons arriving from infected area to be quarantined, persons booking for inspection place not to be allowed to leave train elsewhere, names and addresses can be taken if necessary when booking. This would restrict traffic from infected place which is desirable. Special exemptions from regulation could be given by Government officer to European officers and persons who could be quarantined at inspection station, and quarantine might be limited to inspection stations within, say, 36 hours' journey from infected area.

Telegram No. 440-P., dated Bombay, the 22nd February 1897.

From—The Secretary to the Government of Bombay, General Department,

To—The Secretary to the Government of India, Home Department.

Your telegram No. 577 of 10th. Our rules not only give powers to medical officers appointed at railway stations to examine and

detain persons, but in the case of other railway stations where there are no medical officers enable station masters to send on to nearest inspecting station any person suffering or believed by him to be suffering from plague. In view of your suggestion we propose a rule that station masters should require all passengers coming from infected stations to give names, addresses, business which has brought them to the station and intentions regarding future movements. The infected stations might be considered for the present to be all stations in the Islands of Bombay and Salsette, also Kalyan (on account of Bhiwandi cases), Bassein, Bulsar, Rander, Kirkee, Poona and Ghorpuri. We might require a station master to send a copy of his list every day to the nearest mamlatdar who should forthwith instruct the headman of the village or the Secretary of the Municipality to watch such persons and send a report if he gets ill or departs within ten days.

No. 76.

Telegram dated Madras, the 23rd February 1897.

From—The Secretary to the Government of Madras, Local and Municipal Department,

To—The Secretary to the Government of India, Home Department.

Your telegram No. 576, Sanitary. This Government approves the suggestions and to a certain extent they are being already carried out.

No. 77.

Telegram dated Lucknow, the 24th February 1897.

From—The Secretary to the Government of the North-Western Provinces and Oudh, Judicial Department,

To—The Secretary to the Government of India, Home Department.

Your telegram No. 575. Lieutenant-Governor prefers the suggestion made in your telegram No. 580, and has directed that names and addresses of all passengers who alight at stations where officers of Medical Department have been posted shall be recorded in cases where passengers have come from Bombay Presidency or Sind.

No. 78.

Telegram No. 235, dated Lahore, the 25th February 1897.

From—The Junior Secretary to the Government of Punjab,

To—The Secretary to the Government of India, Home Department.

Your 718 of yesterday. Following sent you on 22nd instant:—*Begins.* 208. Your No. 578, Sanitary. Lieutenant-Governor thinks that though it will be difficult to make proposed arrangement really effective, it is worth attempting if India are not prepared to adopt

system of quarantine for all persons travelling from infected places, as it is understood has been done at Sukkur. *Ends.*

No. 1054, Medl., dated Calcutta, the 25th February 1897.

No. 7

From—H. H. RISLEY, Esq., C.I.E., Secretary to the Government of Bengal, Municipal Department,

To—The Secretary to the Government of India, Home Department.

I am directed to acknowledge the receipt of your letter No. 591, dated the 19th February 1897, in which the Government of India propose, with a view to keep the necessary watch on travellers by rail from infected places in order to prevent their disseminating plague, that all station masters be furnished with a list of infected places, and that ticket collectors should be required to stop all passengers presenting tickets from infected stations. Further, that such passengers should be required to give their names and addresses and such an account of themselves as will enable their future movements to be watched. The Government of India desire to be informed of the views of the Lieutenant-Governor on this suggestion.

2. In reply, I am directed to say that although the Lieutenant-Governor doubts whether, in practice, the system proposed will render it possible to keep any real control over persons coming from infected areas, or to follow their movements, it may tend indirectly to reduce the chances of plague spreading by deterring a number of people from travelling at all. The Lieutenant-Governor thinks that the Railway authorities should also be told to watch whether people alighting from trains remain about the station premises with a view to re-booking.

Telegram No. 786, dated Calcutta, the 2nd March 1897.

No. 80

From—The Secretary to the Government of India, Home Department,

To—The Secretary to the Government of Bengal, General Department.

Your telegram No. 440 of 22nd February. Does list of infected stations given therein still hold good? Reply requested urgently.

Telegram No. 613-P., dated Bombay, the 2nd March 1897.

No. 81

From—The Secretary to the Government of Bombay, General Department,

To—The Secretary to the Government of India, Home Department.

Your telegram 786, Sanitary, of 2nd. No addition yet made to list, but I have doubts about Surat and Ahmednagar, there having been some indigenous cases at former and many Poona people having run away to latter.

No. 82.

No. 224-R. T., dated Calcutta, the 6th March 1897.

From—The Under-Secretary to the Government of India, Public Works Department,

To—The Joint Secretary to the Government of Madras, Public Works Department, Railway Branch.

„ The Secretary to the Government of Bombay, Public Works Department, Railway Branch.

„ The Secretary to the Government of Bengal, Public Works Department.

„ The Secretary to the Government of the North-Western Provinces and Oudh, Public Works Department

„ The Secretary to the Government of the Punjab, Public Works Department.

„ The Chief Commissioners of the Central Provinces and Assam.

„ The Residents at Hyderabad and in Mysore.

„ The Agents to the Governor-General for Rajputana, Central India and Baluchistan.

„ The Director General of Railways.

„ The Consulting Engineers to the Government of India for Railways, Calcutta, Lucknow, and Assam.

Various methods have been under consideration for checking as far as may be practicable the spread of infection from districts affected with Bubonic Plague to other parts of India.

2. It has been suggested that, with the co-operation of the various railway administrations, arrangements might be made by Local Governments at all stations outside such districts to watch the movements of passengers arriving from infected areas, until, owing to the expiry of the period of incubation, the danger of infection had ceased.

3. The Government of India therefore desire that all passengers, from stations within the limits prescribed in the margin (or such other limits as may from time to time be communicated by the Government of India to the railway administrations concerned, shall, on arrival at stations outside the limits named and other than those at which a medical inspection of passengers is being carried out, be required by the railway station staff to furnish to the police, or other agency which the Local Administrations may designate for the purpose of giving effect to these orders, their names and addresses, and such other particulars as may be required for the maintenance of the necessary check on the proceedings and movements of such passengers.

The following limits are at present prescribed :—
 Bombay to Surat.
 „ to Dhond.
 „ to Manmad.
 Poona to Alandi.
 Karachi to
 Pipri.

Any necessary extension should be intimated by wire by the Government of Bombay or the Commissioner in Sind to the Government of India.

4. The Government of India will look to railway administrations to give all the assistance in their power to facilitate any arrangements

for this purpose which the Local Governments may have in view, but they recognize that the time of the station staff is ordinarily too fully occupied with railway duties to admit of their undertaking any specific responsibilities beyond stopping the passengers, and thus giving an opportunity for making any enquiries and taking any further measure which the Local Administrations may desire, and for which the necessary agency may be forthcoming.

5. At the smaller stations it may be possible to arrange with the railway administrations that the station staff shall, in the absence of any special agency, record the names and addresses of passengers who alight holding tickets from the stations within the prescribed limits, and that the station staff shall supply information as to their number and any particulars that may seem important (such as any attempts that may be noticed to avoid detention by alighting and rebooking) to the next inspecting station or any central authority which the Local Governments may designate.

Telegram No. 912-915, dated Calcutta, the 11th March 1897.

No. 83.

From—The Secretary to the Government of India, Home Department,

To—The Chief Secretary to the Government of Madras, Local and Municipal Department.

„ The Secretary to the Government of Bombay, General Department.

„ The Chief Secretary to the Government of the Punjab.

„ The Secretary to the Chief Commissioner of the Central Provinces.

Your telegram { dated 23rd February.
No. 410-P., dated 22nd February.
No. 235, dated 25th February.
No. 1431, dated 20th, and No. 1501, dated 23rd February.

Please refer to paragraph 3, Public Works Department Circular No. 224-R.T., dated 6th instant.

Arrangements described in circular do not apply to stations at which medical inspection passengers is held. At such stations Local Government should arrange to procure particulars from passengers from infected area necessary for maintenance, if necessary, watch over them.

Telegram No. 916, dated Calcutta, the 11th March 1897.

No. 84.

From—The Secretary to the Government of India, Home Department,

To—The Secretary to the Government of the North-Western Provinces.

Your telegram dated 24th February.

Proposal to procure particulars from passengers presenting tickets from infected stations to enable watch to be kept over them. Please

refer to Public Works Department Circular No. 224-R.T., dated 6th instant. Arrangements prescribed in that circular do not conflict with orders issued by Government of North-Western Provinces as described in your telegram dated 24th February since they do not extend to stations where there is medical examination. Government of India consider they will form a useful complement to those orders.

No. 85.

No. 917, dated Calcutta, the 11th March 1897.

From—The Secretary to the Government of India, Home Department.

To—The Secretary to the Government of Bengal, Financial and Municipal Department.

With reference to the correspondence ending with your letter No. 1054, Medical, dated the 25th February 1897, I am directed to refer to Public Works Department Circular No. 224-R.T., dated the 6th instant, regarding the arrangements to be made to watch the movements of passengers arriving from infected areas, until, owing to the expiry of the period of incubation, the danger of infection has ceased.

2. The Government of India trust that these arrangements and the co-operation of the railway authorities will assist the efforts made by the Government of Bengal to prevent the spread of infection. I am to point out that the procedure prescribed does not lay any duties on the railway authorities in stations where the medical inspection of passengers is carried out. It will be necessary for the Local Government to arrange for possessing the necessary information regarding passengers alighting at such stations.

No. 86.

Telegram No. 241-R.T., dated 13th March 1897.

From—Works, Calcutta,

To—Works, Railway, Madras,

" " " Bombay.

" " North-Western Provinces and Oudh, Allahabad.

" " Punjab, Lahore.

" " Central Provinces, Nagpur.

" " Assam, Shillong.

" Resident, Hyderabad, Bolaram.

" Resident, Mysore.

" Agent, Governor-General, Rajputana, Mount Abu.

" Agent, Governor-General, Central India, Mount Abu.

" Agent, Governor-General, Baluchistan, Quetta.

" Consulting Engineer for Railways, Assam, Shillong.

Please add to limits prescribed in paragraph 3 of Government of India letter 224-R.T., of 6th instant, Amrauli and Sayan on Bombay,

Baroda and Central India Railway, Shikarpur and Pano Akil and all stations south of them to Dabheji on North-Western Railway *via* both main line and Kotri-Rohri chord ; also all stations on Hyderabad-Shadipalli Railway.

No. 176, dated 17th March 1897.

No. 87.

From—The Secretary to the Government, North-Western Provinces and Oudh,

To—The Secretary to the Government of India, Public Works Department.

I am directed to acknowledge the receipt of your letter No. 224-R.T., dated the 6th March 1897, intimating that the names and addresses of all passengers by rail from certain areas in the Bombay Presidency and Sind should be recorded on arrival in these Provinces at places other than those at which a medical inspection of passengers is being carried out.

2. I am to say in reply that the names and addresses of all passengers from the Bombay Presidency and Sind, who alight at the twelve stations in these Provinces to which medical officers are appointed are at present being recorded in accordance with the orders of the 26th February 1897, of which a copy is enclosed. These orders were issued in accordance with the views of the Home Department, as expressed in its telegram of 20th February. His Honour did not propose to extend this system to other places in the Provinces partly because at such places the only person to make the record would be a Railway Police officer or (where there are no Railway Police) a railway official, over whose action there would be little or no control and partly because a system has been organized in these Provinces for reporting in every village and town the arrival of a person from the Bombay Presidency or Sind. The record at twelve stations of the names and addresses of passengers was supplementary to this system, and the experiment has not proved a success. It is found that passengers give false names and addresses, and that there is no means of detecting this at the time. The provision of taking names and addresses is so far quite useless and a mere waste of time in the vast majority of cases.

3. For the reasons above stated, the Lieutenant-Governor and Chief Commissioner would prefer not to extend the system in the manner indicated in your letter under reply.

No. 88.

No. 296-R.T., dated the 1st April 1897.

From—The Secretary to the Government of India, Public Works Department,

To—The Secretary to the Government of the North-Western Provinces and Oudh, Sanitation Department.

I am directed to acknowledge the receipt of your letter No. 176 (Sanitation Department), dated the 17th March 1897, stating that, for the reasons given, the Lieutenant-Governor and Chief Commissioner would prefer not to extend the already existing system of recording names and addresses of passengers in the manner indicated in the Government of India letter No. 224-R.T., dated the 6th March 1897.

2. In reply I am to say that that letter was intended to provide for railway administrations affording such assistance as is in their power to whatever staff the Local Government might appoint at railway stations, it being entirely optional with the Local Government to name the railway stations where this assistance should be called for.

No. 89.

No. 1575-76-Medl, dated Calcutta, the 23rd March 1897.

From—H. H. RISLEY, Esq., C.I.E., Secretary to the Government of Bengal, Financial Department,

To—The Inspector-General of Police.

In continuation of Government Order No. 1356-Medl., dated the 12th March 1897, laying down certain instructions for the guidance of village chaukidars in reporting cases of death and arrivals, from the direction of Bombay, of Marwari or other traders in the villages within their jurisdiction, I am directed to forward the accompanying copies of letters from the Government of India, noted in

the margin, regarding the arrangements to be made to watch the movements of passengers arriving from infected areas. In the Lieutenant-Governor's opinion it will be sufficient to arrange that at Chapra, Dinapur, and Chakardharpore, the stations where tickets are checked, the Railway Police should take down the name, address and destination of any person holding a ticket from any one of the infected stations (a list of which is given in the letters from the Government of India, Public Works Department, quoted above), and should report these particulars to the District Superintendents of the Districts for which the passengers are bound. I am to request that

From the Government of India, Public Works Department, No. 224-R. T., dated 6th March 1897, and enclosure.

From the Government of India, Public Works Department, No. 250-R. T., dated 15th March 1897.

From the Government of India, Home Department, No. 917, dated 11th March 1897.

you will issue orders accordingly.

Baroda and Central India Railway, Shikarpur and Pano Akil and all stations south of them to Dabheji on North-Western Railway *via* both main line and Kotri-Rohri chord; also all stations on Hyderabad-Shadipalli Railway.

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by land.

April 1897.

APP. VIII. J

spread of infection of India, Public Works De-

No. 88.

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From—The Secretary to the Government of the North-Western Provinces
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2. In reply I am to say that that letter of the 23rd March 1897, for railway administrations affording such assistance should be called for.

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Correspondence regarding the Disinfection of Baggage.

DISINFECTION OF THE BAGGAGE OF PASSENGERS TRAVELLING BY RAILWAY FROM PLAGUE-INFECTED AREAS.

No. 970, dated Calcutta, the 6th March 1897.

No. 90.

From—J. P. HEWERT, Esq., C.I.E., Secretary to the Government of India, Home Department,

To—The Secretary to the Government of Bombay, General Department.

I am directed to state, for the information of the Governor in Council, that the Government of India have been considering the subject of the disinfection of the luggage of passengers travelling by railway from areas in which plague prevails. Infection may be spread as easily by the contaminated clothes and personal effects of passengers as by the passengers themselves, and the disinfection of suspicious articles is therefore a necessary adjunct to the medical inspection of passengers which is made at the principal railway stations along the lines of communication from infected districts. I am to convey the following remarks regarding the nature and extent of the disinfection which is required in order to be effective, and the manner in which it should be carried out.

4. By the Dresden Convention of 1893, the principles of which are being supported by the delegates of Her Majesty's Government of India at the Conference at Venice, disinfection is obligatory for dirty linen, rags, clothes and other goods forming part of luggage being conveyed from a contaminated district, provided that the local sanitary authority considers such articles to be contaminated. The most effectual method of disinfection is to boil the articles to be disinfected in water or to subject them to the action of steam. At Khana on the East Indian Railway, where special arrangements have been made for the disinfection of baggage, the Government of India are informed that the steam is generated by a large engine on wheels. The steam is passed through a pipe into a 400 gallon water tank, inside of which are twelve iron rods on which the articles to be disinfected are suspended. Access to the interior of the tank is obtained through a manhole at the top. The tank is provided with a safety valve and a tap for the purpose of letting off the water which accumulates. A cooking range is about to be added to the apparatus, and the Sanitary Commissioner of Bengal hopes to have a disinfector on the latest approved principles constructed within three weeks. Until arrangements can be made for disinfecting by boiling water or

steam, articles of luggage can be disinfected by placing them in a solution of two parts of hydrochloric acid and one of corrosive sublimate to 1,000 parts of water for an hour and then drying them in the sun or by artificial heat, preferably the former method. It is not necessary to disinfect in this manner the clothes and personal effects of persons who are not themselves suffering from infection or show suspicious symptoms unless such clothes and personal effects are dirty or in such a condition as to raise a suspicion that they may be contaminated. In all such cases, however, disinfection should, the Governor General in Council considers, be carried out at a railway station near the frontier of the Bombay Presidency and Sind on each of the railway lines leading from those Provinces to other parts of India, and the medical officers at places where disinfection takes place should be instructed to exercise the widest discretion so as to render it quite impossible that articles which may be contaminated shall be passed without being disinfected. It is very desirable that the disinfection should take place at some station at which the train arrives during the day, amongst other reasons because sunlight itself acts as a strong disinfectant.

3. In cases in which the disinfection necessary under these orders cannot otherwise be completed, it will be necessary to detain a portion of the passengers until the departure of the next train.

No. 91.

Telegram No. 1388-P., dated the 9th April 1897.

From—The Secretary to the Government of Bombay, General Department,

To—The Secretary to the Government of India, Home Department.

Your letter 970 of 16th March about disinfecting clothes considered by our Surgeon-General and special Medical Committee who report that any disinfection scheme will entail detention of passengers for at least 24 hours in observation or quarantine camp, and think detention should extend to seven days as Director General states is done at Khana. Are Government India prepared to impose suitable and sufficient restrictions on railway booking at stations on both sides of disinfection stations? Otherwise disinfection and detention can be easily evaded by alighting at another station and taking short land journey before re-booking, and it would be wasteful and useless to buy apparatus, employ staff and establish observation camps proposed by Surgeon-General. As to duration of delay caused by disinfection, our experience shows it takes four hours at Karachi and less than one hour at Ahmedabad.

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Telegram No. 1302, dated Simla, the 15th April 1897.

No. 92.

From—The Secretary to the Government of India, Home Department,

To—The Secretary to the Government of Bombay, General Department.

Your 1388 of 9th. Government of India understand that Bombay Government do not accept view of their Surgeon-General and Special Medical Committee that disinfection scheme will entail detention of passengers for twenty-four hours. Time taken in disinfecting will, it appears to Government of India, depend on amount of plant used. It will now be probably impossible to make prompt arrangements for disinfecting by steam, and the Government of India suggest the simple plan of boiling all suspected articles. Boiling process should not take more than quarter of hour and drying process an hour. Orders as to description apply only to articles regarded by the medical officers as suspicious and will be carried out at places where medical inspection of passengers takes place. It is not necessary to detain train or all passengers while this is being done. Passengers with suspicious effects must be detained till disinfection is complete, unless it is considered that they are themselves suspicious, when they should be detained until the medical officer is satisfied that they may proceed. Government of India trust that arrangements will be made as soon as possible to carry out disinfection. They recognise that some people may evade it, but no scheme for stopping progress of plague is free from this objection. With reference to Bombay Government's suggestion as to imposition of restrictions on booking at stations on both sides of disinfecting stations, would it not meet Local Government's wishes if names of all suspicious persons leaving train at stations within twenty miles of disinfecting stations on one side were taken and given to station masters at stations within twenty miles on the other side with instructions not to re-book them?

No. 1366, dated Simla, the 27th April 1897.

No. 93.

From—J. P. HEWETT, Esq., C.I.E., Secretary to the Government of India, Home Department,

To—The Secretary to the Government of Bombay, General Department.

I am directed to address you, in continuation of my telegram No. 1302, the 15th instant, on the subject of disinfection of the luggage of passengers travelling by railway from areas in which plague prevails.

2. It was stated in my telegram that it will now be probably impossible to make prompt arrangements for disinfecting by steam,

and that the Government of India suggest the simple plan of boiling all suspected articles. It was also stated that the boiling process should not take more than a quarter of an hour and the drying process another hour.

I am now to furnish the following details of the procedure recommended in the cleansing of infected articles, which, if carried out thoroughly, will, the Government of India are advised, afford practical security :—

(1) All articles which the medical officers considered to be infected or suspicious, subject to the exceptions noted in clauses (2), (3) and (4), should be boiled for ten minutes in a solution of carbolic acid (1—40).^{*} The temperature of the solution will of course be temporarily lowered by each article that is plunged into it, so that precaution is necessary, not only to see that each article is so unfolded as to be exposed in every part, but that every part is subjected to the boiling temperature for the full ten minutes. On removal from the boiler, articles should be dried in the sun for at least an hour.

(2) Articles made of leather, of wood and glue, etc., which would be injured by boiling, should be soaked in, or thoroughly mopped with a solution of perchloride of mercury † and dried in the sun. When it is considered necessary, such articles may, in addition, be washed with a warm 5 per cent. solution of carbolic acid and soft soap.

(3) Metallic articles, which may be unsuited to treatment by boiling, should be washed and scrubbed with a warm 5 per cent. solution of carbolic acid and soft soap and dried in the sun.

(4) Articles capable of conveying infection, which cannot be treated in any of these ways, should be burnt.

^{*} Carbolic acid solution for boiling should be of the strength of 2½ per cent, and that for washing 5 per cent. The carbolic acid should be of good commercial quality and free from admixture with tar oils.

† The solution of perchloride of mercury should be of the strength of 1—1,000 with either 10—1,000 of common salt or 5—1,000 of hydrochloric acid added. It should be coloured blue with aniline or indigo, to prevent accidents, and should not be exposed to contact with metals. It is desirable to make the solution frequently, in comparatively small quantities at a time, and with as pure water as possible. A good solution recommended by the English Local Government Board can be made as follows :—

Half an ounce of corrosive sublimate, one fluid ounce of hydrochloric acid and 5 grains of commercial aniline blue, in three gallons of water (strength, 1 of mercuric chloride in 960).

average be much less than the kit of a European soldier, and the Government of India have no doubt that the Government of Madras, etc. ^{you} will not find it difficult to determine the size and number of the boilers to be provided at the places where disinfection takes place.

4. In the rainy season the boiling process may, owing to the difficulty of drying the clothes, be less easy to carry out. It may then be necessary to construct an apparatus for artificially drying the clothes.

Telegram No. 1780-P., dated the 29th April 1897.

No. 95.

From—The Secretary to the Government of Bombay, General Department,

To—The Secretary to the Government of India, Home Department.

Your telegram 1302-Sanitary of 15th. Orders issued for carrying out disinfection of passenger's clothing therein suggested at railway stations, Hotgi, Bhusawal and Ruk.

REPORTS ON THE KHANPUR (PUNJAB) DISINFECTION AND OBSERVATION STATION.

No. Disinfection ₃₉, dated Khanpur, 13th July 1897.

No. 96.

From—LIEUTENANT J. G. CROSTHWAITE, Assistant Commissioner, Disinfecting Officer,

To—The Deputy Commissioner, Mooltan.

In compliance with the instructions contained in letter No. 366-S., dated 17th June 1897, from the Junior Secretary to the Government of the Punjab, to the Commissioner and Superintendent, Lahore Division, I have the honor to submit a comprehensive report on the arrangements for disinfection of passengers at Khanpur, to which Surgeon-Lieutenant Milne, Inspecting Medical Officer, has added a supplementary report.

2. (a) In obedience to telegraphic orders received on the 4th April, I left Mooltan and arrived at Khánpur on the 5th. Although no definite orders had been received, I was informed by Surgeon-Lieutenant Milne that it was intended to establish a disinfection post in Khánpur. Pending receipt of orders I decided after consultation with Surgeon-Lieutenant Milne, to have the camp site cleared, as it was covered with jungle. This site had already been selected by Surgeon-Lieutenant Milne. Sardár Ata Ulla Khán, Chief Judge of Baháwalpur, had arrived at the same time as myself. I arranged with him that the State authorities should collect labour, as none was

obtainable locally, and also collect hutting material for the Hospital and Detention lines. I also entertained a Munshi and Chaprási or Orderly.

(b) No orders were received on the 6th, but on the advice of Mr. Ritchie, District Loco. Superintendent, Sukkur, it was decided to build the detention lines of unserviceable sleepers. I therefore placed myself in communication with Mr. Royal Dawson, the Sub-Divisional Officer, who at once placed sleepers at my disposal. Over 3,000 unserviceable sleepers were lying at Khánpur itself. During the day the camp was partly cleared, and the sites of the lines, latrine, etc., roughly fixed. Surgeon-Lieutenant Milne estimated that lines for 500 men and 50 women and children would be required. Building was then commenced. I wired to the Deputy Commissioner, Mooltan, for camp servants and also for information as to supply of clothes, etc., procurable, none of which appeared procurable on the spot. I also applied to His Highness the Nawáb through the Chief Judge for two Havildárs and twenty men of the State Infantry. I then reported to the Deputy Commissioner (my No. D.—30, dated 7th April 1897) the steps taken. Mr. Rennie, as District Magistrate, had already deputed to me full powers under Notification No. 350, dated 8th March 1897, pending the issue of orders.

(c) On the 7th full instructions were received. These were contained in the printed Proceedings of the Plague Conference held at Lahore on the 3rd April and in a demi-official letter dated the 5th, from the Junior Secretary to the Government, Punjab. I was able to report that most of these instructions were already being carried out, particularly as regards—

- (i) Separate hutting of men and women.
- (ii) Site and size of camp.
- (iii) Latrines.
- (iv) Supplies.
- (v) Servants.
- (vi) Clothing.

By the evening lines were ready for 40 women and children and 100 men. The water-supply had been settled; dry earth latrines were ready, and shops established. I therefore notified to the Manager, North-Western Railway, that detention would commence next day.

(d) On the morning of the 8th detention was commenced. As the tanks had not arrived, disinfection was carried out by boiling in a

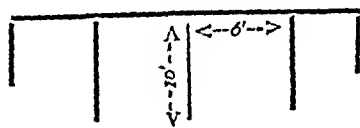
small tank and exposure to the sun [see paragraph 8 (f)]. Before evening quarters for 200 men were ready and temporary arrangements as to establishment completed.

mp.

3. The position of the detention lines, disinfection tanks, etc., etc., is shown in Map A.* The instructions given in paragraph 9, Conference Proceedings, were followed as far as possible, but the side of the Railway opposite the station is south of the line, and not east of it. The State boundary is drawn in accordance with their own revenue map and actual possession. The entire Camp, Hospital, etc., lie within British territory. The site was particularly well suited for disinfection purposes, unless its lowness be considered a disadvantage, though these hollows, from which the station has been raised, are not liable to be flooded. The Canal Railway Line and high land to the south made well marked boundaries and lessened Police work considerably. The bund running between the men's and women's lines was an unmistakable advantage. The latter could not be seen at all from the former (*vide* section on G. H., Plan B). The water-supply was conveniently close and the disinfection tanks excellently situated. The sanitary aspect of the camp has been dealt with by the Inspecting Medical Officer.

4. (a) Sleeper huts were completed and ready for 200 men and 40 women and children on the evening of the 8th. By the 13th quarters for 375 men, 40 women and children, Special Hut, Police Lines, Office, Hospital Assistant's hut, Intermediate Quarters, Latrines, Bazár and Servants' quarters were complete. The first Police Lines were of grass. These had to be replaced later with sleeper huts of an improved pattern (see Plan B),* as they were twice blown down in storms. The waiting shed, office verandah, etc., were all additions, though most had been originally contemplated. The fact that the harvest was dead ripe forced me to allow all the "chers" or 'corvee' labourers to go at the earliest opportunity. Most were dismissed on the 12th, the rest on the 13th.

(b) Plan B gives a detailed plan with sections, elevations, etc.



The main feature of the lines was the cell unit; composed of one side, back and roof, dimensions as in margin, height 8' 6" at back, sloping to 7' 6" in front. Each cell fitted to the next gave

a separate "kotha." The women's lines contained 10 cells, morning lines 1, 2 and 3 (see Plan B) 17 each, evening lines 4, 5, 6 and 7, 12

NOTE.—For disinfection advantages of cell system, see Inspecting Medical Officer's Report.

* See map in Vol. IV, page 18.

each, office 3 cells, etc., etc. Simplicity in building was essential, and there was little skilled labour and only my own plans to work on.



The building was done as follows:—The cell or line of cells was marked out with pegs and string. Between each two pegs was one task to which one man was allotted. All could work simultaneously.

The dotted line gives the earth removed (to the width of a "khái" blade); the arrows the direction digging proceeded in to a depth of 2' to 2' 6". When the earth had been removed the sleepers were simply stood up in the trenches and the earth rammed back. Any Munshi can lay out the tracings and any person supervise the work. The number of sleepers required for any given line of cells is $31x + 10$, x being the number of cells. The total number of sleepers used was 6,003. Of these about 150 were cut up for struts. The remainder are practically of the same value as when received. The iron dogs used (*vide* Plan B) were made of rod iron procured from Mooltan. Roofs were composed of sleepers laid broadways, the cross beam being always a "bridge sleeper." These can be recognized by their creasote coatings. Over the roof was laid "serkhána" grass, and this was "lepped" with mud. In receiving sleepers, care should be taken that they are stacked into piles of hundreds before delivery. This I omitted, and found it a cause of trouble afterwards.

(c) The advantages of sleeper huts over grass huts are as follows:—

- (i) more quickly erected;
- (ii) less expensive;
- (iii) better protection against the sun;
- (iv) possibility of disinfection;
- (v) comparatively no danger of fire.

It was objected that disinfection would be difficult. Surgeon-Colonel Raye, Inspector-General of Civil Hospitals, decided that, under ordinary circumstances, copious syringing with a solution of 1 : 1,000 of corrosive sublimate would be sufficient. This has been carried out. A Holborn garden force pump, cost Rs. 5, supplied by the North-Western Railway Stores Department, has been found very useful. The subject has, however, been fully dealt with by the Inspecting Medical Officer.

(d) The final pattern of latrine consisted in a long trench from 3 feet to 4 feet deep, the width of a country spade, or *khái*, in width; this was partitioned off at every two feet by a two foot square screen,

and the whole was enclosed by a high screen. The trench as used was gradually filled up with dry earth mixed with a little carbolic powder. When full, a new trench was dug and the screens shifted. The small two foot screens gave a certain amount of individual privacy. Before they were put up I received some complaints on this score.

ents. 5. (a) Before receiving the orders referred to in paragraph 2 (c) I had indented on the State for two havildárs and twenty men of the State Infantry. I received two sergeants and 12 men of the ordinary State Troops. These were employed on the three picquets shown in Map A. I found it convenient to assume the nullah and high land as camp limits, and placed the picquets accordingly. These picquets did not visit the detention lines except to make reports or to join hands with Police patrols. Their main duties are detailed in Appendix A. In addition one sergeant or havildár and one sepoy met each train to deal with local passengers.

(b) On the 8th April 2 sergeants and 20 constables arrived from Mooltan. Their sentries are shown in Map A and Standing Orders as part of Appendix A. Their other duties were to assist in maintaining the Camp Orders or Rules. This they were fairly successful in, but the passengers were somewhat hard to manage at times. On one or two occasions large bodies of native soldiers (in one case over 100 Pathans of the Biluch Regiments) were in the camp. They had no native officer with them. The standing feud between the native soldier and policemen is always liable to lead to trouble.

(c) Three sergeants and nine constables acted as train patrols. These arrived on the 5th May. One sergeant and three constables accompanied each passenger train up. Goods trains were from time to time accompanied by two constables. Their operations were checked through the reports of the ticket collectors, copies of which, through the courtesy of the District Traffic Superintendent, Sukkur, were placed at my disposal.

standing 6. (a) The Camp Standing Orders or Rules regulating the arrangements of the camp are given as Appendix B. All passengers were directed to make themselves acquainted with these rules. Those who could not read stood to hear some literate person read them. Their existence was frequently justified. In obedience to the wish of His Honor the Lieutenant-Governor, I made no use whatever of my magisterial powers beyond an inquiry into the circumstances of the case of Kishan Chand (my letter No. D.—2, dated 2nd May, and subsequent correspondence.) The Standing Orders, however, contained a warning that disobedience of their provisions would bring the offenders within the scope of Section 188, Indian Penal Code.

(b) In addition to these Rules the "Reasons for Disinfection," given as part of the same Appendix, were posted throughout the camp. Passengers inquiring why they were detained, a numerous and usually well-educated class, were referred to them for explanation. It is believed that these reasons, in default of better, were usually accepted as sufficient. Discussion as to the expediency of detaining any particular passenger, and the consequent waste of time, were avoided.

7. The Camp Time-Table was as follows :—

Daily routine.

Sunrise	...	First inspection of clothes [vide paragraph 9 (a)].
A.M. 7-11	...	Arrival of 23 Up Mixed [vide paragraphs 9 and 11 (b)].
" 7-45 or 8	...	Inspection of clothing by Inspecting Medical Officer and Disinfecting Officer [vide paragraph 9 (b) and (c) and Supplementary Report].
" 9	...	Inspection of passengers [see Supplementary Report].
" 10	...	Disinfection tanks opened [see paragraph 8 (e)].
" 10-30	...	Clothes distributed [see paragraph 8 (e).]
P.M. 5-30	...	Second inspection of passengers and their entraining [paragraph 8 (b) and (c) and Supplementary Report].
" 6-20	...	Arrival of 7 Up Mail [see paragraph 11 (b)].

8. (a) At sunrise the Camp Hospital Assistant saw that all kits belonging to men, passengers of the mail train on the previous evening, were opened up and laid in the sun. Disinfection.

(b) At 8 A.M., the passengers by the 23 Up Mixed having been escorted to the lines and their clothes laid out, I inspected all their kits, selecting clothing, etc., to be steamed, sun disinfected or destroyed. As each passenger's property was inspected, he was ordered to take the clothes to be steamed at the tanks; clothes to be sunned were placed on the cell roofs or on charpáis; clothing to be destroyed was handed over to the sweeper.

(c) On arrival at the tanks the clothes were laid lengthways and tied in the middle, not rolled up in a cloth. A brass number was attached to the clothes and the duplicate retained by the passenger. Companions frequently made one bundle of all their clothes. Before leaving their clothes each passenger was supplied, if he desired it,

with a "langocha" or waist cloth. The Camp Hospital Assistant was responsible for these arrangements, but he was frequently supervised by Mr. Taylor, the Loco. Foreman. The passenger next bathed either in the tank or under the Engine Hydrant (*vide* Plan B) as taste or caste advised. He then returned to the lines to await inspection (see Supplementary Report).

(d) Though under the instructions of the Plague Conference clothes were supposed to be provided, yet in practice no other clothes beyond "langochas" were ordinarily supplied or asked for. Most passengers had spare clothes, but many preferred to remain in the "langocha" only until after inspection. Men of the better class sometimes asked for clothes, and these were at once supplied from the Store. The "langochas" were washed daily and frequently disinfected.

Ordinarily no caste prejudice was shown as to their use, and Hindu and Muhammadan used them indiscriminately. Some of the Nanak-panth Sikhs, especially Turkhans, and a few Akalis, who wore the "Katchi" or short drawers, objected to the "langocha." Short drawers of the correct pattern were kept in stock and issued them, their old ones being destroyed. A few Muhammadans objected to their clothes being steamed on the ground that they were "Namazai." This objection was easily overcome by allowing them a tub of cold water in which to rinse their clothes after disinfection.

(e) The tanks were closed for an hour. After re-opening half an hour was allowed for the tank to cool and the clothes were then taken out, the brass labels collected and the clothes returned to their owners. Any case of injury to the clothes or loss was at once noted by the Hospital Assistant and reported to me for award of compensation. These cases were very few in number.

(f) (1) The tanks used were four in number. At first disinfection was carried out by boiling in a small tank over a wood fire. Mr. Ritchie, District Loco. Superintendent, however, fitted this tank with a steam injector which kept the water constantly above boiling point. The use of this tank was discontinued when the camp received the two large tanks.

(2) The second tank was received from Lahore on the 10th April. This tank was only 4' x 4' x 4'. Its small size rendered it practically useless. On its arrival it was unprovided with a safety valve; the bottom cock was an inch above the bottom, and rust and dirty water accumulated, spoiling clothes. These defects were

NOTE.—If these arrangements were continued in the cold weather, blanket, coat and trousers would become a necessity. "Langochas" can only be considered a hot weather arrangement.

cured, but after about a month's use it commenced leaking at the seams. Its small size did not allow of more than 12 kits being placed in it, and the stays in it prevented the extrication of the clothes in any other way than with an iron hook. This caused delay and injury. Each steaming lasting an hour, the day's passengers would never have been disinfected.

(3) At my request Mr. Ritchie, District Loco. Superintendent, provided (within 24 hours) two metre gauge water tanks, inside measurements $13\frac{1}{2}' \times 2\frac{1}{2}' \times 6'$. These were fitted with large man-holes and wood-lined. The wood work, besides saving injury to the clothes from rust stains, divided the interior into 6, leaving a central passage which allowed the tankman free access to all parts of the tank interior. The manhole covers were fitted with double safety valves, allowing the air to enter the tank as it cooled. These were regulated at 6lbs. Each tank would hold about one hundred and twenty kits.

(4) All three tanks connected with one pipe, each having a cut-off cock, allowing any or all to be used.

(5) The cost of the small tank was Rs. 322-6-4. The total expenditure on the other two Rs. 427-2-7. The advantage in employing the latter is obvious. The larger the tank is, the quicker and easier the work of disinfection.

(6) An additional tank was made at Lahore $8 \times 8 \times 4$ feet, at a cost of Rs. 428. It has not been considered advisable to bring this down to Khánpur, the present two metre gauge tanks disposing of the work satisfactorily. The question of cost has been referred to Government.

(g) The pressure of steam in the tanks was 6lbs. The temperature within them presumably from 225 to 230° F. The time of exposure to its effects one hour. The Inspecting Medical Officer has disposed of the efficacy of the disinfection in his Supplementary Report.

(h) The furnace used for destruction of the clothes was of my own design and somewhat primitive. I was unable to get any design to work on. It was practically an open iron grating with mud walls round, and three indraft apertures in them below the grating. The clothes were placed on the grating and a handful of grass ignited below. The pile was kept at a blaze and nothing was left, but a handful of ashes. This was removed daily and buried.

9. (a) During the inspection of clothes (see paragraph 8 (b)) I was accompanied by my Head Clerk with a rough Compensation Register Compensation.

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and some tin tickets of the form shown in the margin. As any property was destroyed, compensation in clothes or cash was at once awarded and entered up in the rough register, the owner receiving a tin ticket. As soon as the men appeared at inspection, which took place directly after, the clothes or cash was given them and the ticket redeemed. The Compensation Register had been previously written up and checked. If the man's whole property or much of it was destroyed he was provided with the new clothes first. It was impossible in practice to carry out the instructions received to pay the compensation as it was awarded.

(b) The women's clothes were disposed of by the Inspecting Medical Officer and Female Hospital Assistant. The rough register was brought to me before entry in the Compensation Register. Clothes were then issued from store and money paid over to Hydari Begum, Female Hospital Assistant, who distributed it.

(c) In awarding compensation I have endeavoured to give fair awards, but somewhat in favor of the owner. Consequently my award has only once or twice been objected to and then when a money award.

(d) A full statement of all clothes destroyed and issued between the 8th April and 8th July is added to this report as Appendix C. The men's clothes were made up of "kadr" or country cloth at 13 yards the rupee. Women's and children's clothes of "márkín" at 11 yards, and "sussi" at 9 yards. The cloth was procured and made up locally. The Female Hospital Assistant supervised the making of all clothes for women and children. The men's suits of "kourta," "pyjama," "waistcoat" and "sáfa" were all of one size. Their being too large for the majority of the recipients was not regarded as any disadvantage. Suits for women and children were made in varying sizes. Blankets were purchased at Mooltan at a cost of Re. 1-5-10 each, including carriage. Rezáis were not kept. Owners of old and tattered ones willingly accepted blankets. The total cost, including tailors's bills, etc., of actual clothes was Rs. 356-13-6, of blankets Rs. 342-4-6, giving the total cost of compensation in clothes as Rs. 699-2-0. Details as to numbers, etc., is supplied in Appendix C. The cost of making up men's suits was Re. 1-6-0 "kourta," the same for "pyjamas," 6 pie a cap, 9 pie a "waistcoat." The women making up clothes were paid 5 annas a day. The actual cost of the "kourta" and "pyjamas" made up was 12 annas. The women's clothes varied extremely.

10. (a) When the disinfection post was first started and detention enforced, the only precaution taken was that the doors of the 3rd

class and Intermediate carriages were locked at Rahīm Yār Khān and Kot Samāba. This precaution was intended to prevent any passenger evading inspection by the Inspecting Medical Officer, and had been in force some time. Before detention commenced a telegram (demi-official, dated 7th April 1897) was sent to Government, asking whether booking to Kot Samāba, Rahīm Yār Khān and Sadīqabad could not be stopped, as there was, in the absence of all restrictions, every possibility of passengers evading detention by leaving the train at those stations. It was not considered necessary to take any such steps at the time. I subsequently again asked (my demi-official dated 13th April 1897) that no 3rd or Intermediate class passenger be allowed to alight between Reti and Khānpur, and that all such passengers who had booked to the intermediate stations be first compelled to pass through the Disinfection Post at Khānpur. This step was at first considered unnecessary. At a later stage, however, in consequence of certain cases of evasion having occurred, Notification No. 823, dated 29th April 1897, was published. Under this notification all 3rd and Intermediate class passengers booked to stations between Reti and Khānpur are first brought to Khānpur and then returned after disinfection. Over 5 per cent. of the number so disinfected have afterwards proceeded towards Mooltan. It is only reasonable to suppose that the number endeavouring to evade detention would have been much larger. Many of this 5 per cent. have admitted to me that they had purposely booked short. It is, however, clear that a strip of country or section of railway must be kept closed if it is desired to ensure the disinfection of all persons travelling from infected districts by rail. It is true that the State stationed disinfection posts at the stations below Khānpur, but until these were reorganized by Surgeon-Captain Heard, Medical Adviser to His Highness the Nawāb, their proceedings were simply farcical. Under present arrangements if a man alights at Reti and marches to Firoza beyond Khānpur, there can be little doubt as to the state of his health. At present with the out-booking stopped and the roads in the State thoroughly patrolled, there can be little chance of any body of travellers from infected districts getting into the Punjab.

11. (a) The actual arrangement for detention of passengers is as follows. On the arrival of the evening train the Inspecting Medical Officer and Disinfecting Officer see each carriage. The former examines all 1st and 2nd class passengers. Any to be detained are locked into their carriages. The Camp Clerks then enter up the Nos. of tickets and passengers' names and parentage: those of the women are entered up in a separate slip by the Female Hospital Assistant, which is afterwards copied into the Camp Registers. One 3rd class

Detaining of passengers and removal to the L. H. S.

compartment is reserved for railway servants on duty, Fuel Contractors, State Excise Contractors, Post Office officials and others travelling locally on duty. These men's passes are examined and they are let out. The outgoing train stands on line No. 2 (see Map A) and in this are the disinfected passengers. Two constables are placed between the two trains to prevent any one slipping out of the incoming train. On the completion of the Inspecting Medical Officer's examination the whole train is taken out to No. 5 line (see Map A), the 1st and 2nd class passengers and contents of Brake and Postal Van having been previously transferred, though the use of this latter step is not very apparent, so long as neither Postal officials, bags, nor contents of Brake Van, are disinfected. The Camp Clerks, Hospital Assistant and all Police on duty accompanied the train to No. 5 line. On its arrival there the remaining passengers were entered in the Register and the male passengers conducted to the detention lines by the Disinfecting Officer and quartered. The women were taken by a separate route to the Women's Lines by the Female Hospital Assistant and the Dhairi. The camp water-carriers attended to carry the women's baggage, etc.

(b) On the withdrawal of the incoming train the outgoing train was brought on to the platform and was generally despatched before the incoming passengers were clear of their train. This was a distinct advantage, as the passengers quickly resigned themselves to their stay in the lines when they found the other train had already left.

enclo- 12. The women's lines were, as originally directed, placed entirely under the charge of Hydari Begum, Female Hospital Assistant under the supervision of the Inspecting Medical Officer. Every effort has been made to avoid any inconvenience or discomfort to the women. Women of the better class with their husbands have been, so far as possible, allowed the use of the intermediate quarters (see Plan B), which is also under Hydari Begum's charge. I would point out in this connection that it is not practicable to use sweeper women to carry clothes, as recommended by the Plague Conference. Many castes would consider the clothes defiled and decline to receive them again. But the women's lines have been dealt with fully by the Inspecting Medical Officer. I have only to add that Hydari Begum has made herself thoroughly respected and liked by all with whom she has been brought in contact. A woman of less strength of character would never have been able to manage the women's enclosure with half her success.

ply. 13. (a) The camp has been dependent for its water-supply on the Railway tanks. These are two in number, measure each 51' x 13'8' x

5', and contain 45,562½ gallons. They are filled by the pumping engines from the two wells shown in map A. The water is considered good by the Inspecting Medical Officer. The supply has throughout been sufficient though care had to be taken latterly as the wells ran low. On the 10th April Mr. Ritchie laid water on into the centre of the camp and supplied a standpipe and tap. This has been most useful. It has not been possible to have a drain from the standpipe. A pit was dug, where the water collected under it, and lined with ashes. This was baled out twice a day and disinfectants thrown into it.

(b) A reserve moveable tank, Jacobabad pattern, holding 3,490 gallons, was lent by the railway authorities. The water was used for washing purposes. It was filled from the engine hydrants.

(c) The daily consumption of water exceeded 6,000 gallons, the bathing tank alone using 4,000.

14. (a) The State supplied one bania for the camp. He was found by the city and received, I am told, Rs. 75 a month from the other traders. As, however, the station food contractor eagerly set up a rival shop, it is probable that business was good. A weekly price list was obtained from the Kárdar and prices regulated by it (*vide* Camp Standing Orders).

(b) The food supplied was not of the best quality, nor could good food always be procured. Summary justice, however, in the shape of destruction of all supplies condemned by the Inspecting Medical Officer, kept the supplies as good as they could be. Vegetables were scarce and of bad quality. Mutton almost unprocurable and very bad. Goat's flesh equally bad. Under the Inspecting Medical Officer's advice the sale of meat within the lines was forbidden. The purchase of liquor or drugs was prohibited. Liquor in the possession of passengers was sometimes stored in the office till their departure. The railway icemen were encouraged to sell aerated waters and ice to passengers in the lines.

15. (a) The strength of the establishment is given as an appendix. Their ordinary duties have already been described in various paragraphs.

(b) Many of the establishment had only one suit on their arrival. A second suit at half price was supplied them from the stores. Their clothes were disinfected once a week. Care should be taken that the sweepers do not collect rags, etc., thrown away by passengers. Here the huts were inspected weekly.

(c) Some of the establishment first entertained was found to be unnecessary. The final numbers as shown in Appendix D are the minimum strength with which 200 travellers can be disposed of daily.

(d) Considerable difficulty was experienced by the Deputy Commissioner, Mooltan, in obtaining men, even at the high rates offered, the terrible death-rate amongst municipal servants in plague centres being the deterrent.

(e) I have already drawn attention to the excellent work of Hydari Begum. The Head Clerk, Abdul Karim, has also worked very well, and his industry has been marked. Fazl Din, Hospital Assistant, has carried out the duties entrusted to him satisfactorily.

16. The following list gives all the Camp Accounts and Registers. The form of those marked with an asterisk is given in Appendix E:—

(a) Cash Book, containing in addition record of cheques issued and cashed—

(One copy in English.)

(Ditto Vernacular.)

(b) Cheque Book on Mooltan Treasury.

(c) Pass Book of Personal Ledger Account.

(d) Abstract of Accounts.

(e) Store Book.

*(f) Cash and Clothes Compensation Register (Awards).

(g) Daily Pay Register (for labour).

(h) Miscellaneous Account.

(i) Establishment Roll.

(j) Vernacular Letter Book.

*(k) Cloth Register.

*(l) Passenger Register.

17. A statement of the passengers and the plague centres from which they came is given as Appendix G.

The total expenditure is shown in the Abstracts Statement, Appendix F.

The total number of clothes destroyed and given as compensation, in Appendix C.

18. *Fire arrangements.*—No cooking was allowed inside the cells. With sleeper huts there was comparatively little fear of fire. Each cell contained one or more ghurras, which were kept filled. A small fire-engine was also kept in the Engine House and would have

been at once available (see Plan B). Five buckets were also kept at the station and at the wood piles. The latter were kept filled. Five fire buckets were kept in the Women's Lines.

Lighting.—Large station lamps were used. These were supplied by the North-Western Railway Stores.

Charpoys.—It was impossible to supply all passengers with charpoys. The bantias and one contractor were allowed to hire out charpoys at 3 pie the night or 6 pie the 24 hours. A certain number of reserve charpoys belonging to the lines were entrusted to the contractor, who hired them out, receiving 2 annas per rupee as his share of the profits. This brought in a small amount, but more than their value. The Women's Lines were supplied first with charpoys. Government servants on sick leave were supplied free.

Caste prejudice.—The question of caste prejudice, *re* disinfection, has already been discussed.

It was found advisable to reserve one line for Hindus, one for Muhammadans and one for Native soldiers. Sweepers were allotted a distinct line.

Certain Hindus, Vishnús and down-country or Purbyiah Brahmins objected to drinking the tank water. They were not allowed to fetch other water, as this would have been from the nearest nallah. It was understood that the protest relieved their conscience.

Attitude towards plague precautions.—Generally speaking the average passenger considered the precautions worse than the disease.

They would have preferred no action whatever being taken. The native railway officials were actively or passively hostile.

Languages.—It is advisable to have Pashtu and Persian speaking men among the Camp establishment. Both my Munshi and Orderly spoke Pashtu. I found some acquaintance with Persian and Pashtu useful.

19. I have in conclusion to particularly thank the management of the North-Western Railway for their ever-ready help and for their support to measures that frequently tended to kill traffic and cause loss of revenue. To Mr. Ritchie, District Loco. Superintendent, Sukkur, I am especially indebted for his help and advice. Conclusion.

Among the minor railway officials, Mr. Roach, Station Master, and Kali Charan, Assistant Station Master, have helped me in every way. I have also met with much help from Mr. Taylor, Loco. Foreman, who has devoted much of his spare time to superintending the actual disinfecting arrangements. Mr. Donohue, Permanent-Way Inspector, has aided me frequently in building operations.

I beg finally to draw the attention of Government to Surgeon-Lieutenant Milne's cordial co-operation in all matters connected with the camp, even where I had no right to ask his aid. His advice has been of the greatest use to me throughout, and the whole sanitary arrangements of the camp have been entirely in his hands.

Report B. 1 (to accompany Disinfection), dated Khánpur,—July 1897.

From—SURGEON-LIEUTENANT C. J. MILNE, M.B., I.M.S., Inspecting Medical Officer, Khánpur,

To—The Deputy Commissioner, Mooltan.

I have the honour to forward the following supplementary report to that herewith submitted by Lieutenant J. G. Crosthwaite, the Disinfecting Officer, who has been associated with me in the work of retarding the spread of the plague into the Punjab from Sind since the 5th April 1897:—

1. In accordance with instructions received from the Inspector-General of Civil Hospitals I arrived at Khánpur on the morning of the 19th January and assumed charge of my duties as an Inspecting Medical Officer at once. The work done between that date and the date when detention commenced will be embodied in my final report to be submitted by me to the Inspector-General of Civil Hospitals in the Punjab when my duties here are terminated.

2. On the 31st March I received a letter No. 1240, dated 30th March 1897, from the Inspector-General of Civil Hospitals, enclosing a copy of a letter (No. 510, dated 26th March 1897) from the Junior Secretary to Government in the Punjab. In this letter the Inspecting Medical Officers at the chief places of inspection in the Punjab were requested to report on the time required by them to inspect trains, and also to suggest any alteration in the method of inspection. I replied to this in my No. 39-A., dated 2nd April 1897, in which I suggested the detention of all passengers (and the disinfection of their kits) for 24 hours at least if a ten days' detention could not be enforced. The suggestion to detain, etc., the passengers thus made seems to have met with the approval of the Plague Committee, who met in Lahore on the following day, April 3rd, as on the evening of that date I received a telegram stating that such had been adopted. Next morning, April 4th, I received a demi-official with preliminary instructions with regard to the detention, but pending the arrival of the Assistant Commissioner and the Baháwalpur representative, I could do nothing but go over the ground where the camp could be formed. This I did, and the site chosen was fully approved of by the others on their arrival on the 5th. The subsequent proceedings are fully

detailed by Mr. Crosthwaite and I have but to supplement his remarks with the following notes.

In the selection of a site for the camp in question—proximity to the engine shed—the source of our means of steam disinfection, etc., had to be chiefly considered. Very luckily the ground alongside of the shed and a continuation eastwards of the lowly lying waste ground, wherein the hospital was placed, presented so many natural aids to such a camp as ours that its selection was at once justified. That the site is a healthy one may be judged from the fact that among all the staff who are permanently resident there, including the police, there has only been one case of illness requiring admission to the hospital, and only very few cases of any sort (chiefly among the Police) requiring any attention whatever.

4. The points in connection with the housing of the persons in rows of sleeper huts such as has been carried out, to which I wish to refer, may be classed under the following heads:—

(a) With reference to the occurrence in them of cases of suspicious or actual plague and how the hut was to be rendered free of further infection.

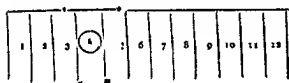
In my demi-official dated April 16th, to the Inspector-General of Civil Hospitals, I explained the method we had decided to adopt in the event of such an incident occurring. It was that the section of the row of huts be extracted and the sleepers forming the roof and walls of the section be burnt. The ground on which the hut had stood was to be dug up and treated similarly to that on which a case had died in the hospital.

Represented diagram-

SECTION OF HUTS.

A.

Before extraction of the infected one.



B.

After the demolition of the same.



atically supposing A. in the row of huts 1—12 a case of plague had occurred in No. 4, then all the sleepers between the points marked by a red cross were to be taken out and burnt. Fig. B. shows the appearance the row of huts would present after the demolition of the infected one.

(b) The monthly disinfection of the huts by syringing with 1:1,000 corrosive sublimate solution. This necessary procedure was rigorously carried out as directed by Surgeon-Colonel Raye. One hundred gallons of such a solution were required in order to disinfect the 118 huts in the camp. This involved roughly the expenditure of 11 lb. of the antiseptic in question.

(c) The huts as a protection from the elements.

(1) *The temperature.*—With regard to the heat, the position of the huts (facing the east) and the solidity of their roofs were a considerable protection from the hot rays of the midday and afternoon sun. Still, as the month of May progressed complaints as to the heat were not infrequent, and one or two cases of slight fever were probably due to the same. The erection of the Inspection Chhappar under which a considerable number of the detenus could accommodate themselves during the day has been found to greatly alleviate these conditions.

(2) *Rain and Storms.*—These are of very rare occurrence, but this year have been more frequent than for many years past. Rain unaccompanied by wind gave no trouble, but when wind was present the front row of huts as a rule suffered, the others only leaking slightly and to an inappreciable extent. The addition of a small verandah cover of sarkhána grass which has been suggested would be of immense help not only as a protection from rain, but also aiding the protection from the sun. Should the camp be likely to continue for any length of time, this addition will be undertaken. I am strongly of opinion that sleeper huts made in the form carried out are infinitely more satisfactory than grass ones for such a purpose as ours has been.

water-sup- 5. In addition to the abundance of the supply we have been very fortunate in having water of such excellent quality. The standpipe laid down into the centre of the camp by Mr. Ritchie proved a great boon to all concerned. The pipes conveying it were carefully covered, and cool water has been procurable at all times during the day. The tank supplied by the railway was a most excellent reserve for cases of emergency, but has rarely been put in requisition. Should a similar camp ever be formed again on a larger scale, such tanks would be of extreme importance, but it would be necessary to erect some sort of a structure over them so as to prevent the water getting so hot as to be unfit for drinking purposes.

general sani-
arrange-
ts. 6. (1) The lines themselves were kept scrupulously clean. The moment the passengers had evacuated them at 5 P.M., the whole of the sweepers were enjoined to overhaul the lands thoroughly.

(2) As regards the important matter of latrines, the system originally suggested and adopted was that of an enclosure in which a number of receptacles were placed. These when soiled were to be carried away at once to the trenches, which were some 70 yards distant, by the attendant sweepers. But this method was quite impracticable. After the arrival of the train the latrines were so crowded that do what the sweepers could they were unable to do their work quickly enough to be satisfactory, and the smell, etc., gave rise to frequent complaint.

We then made the long trenches over which the men could sit, and this system has proved admirable. The trenches are two in number, each 50 yards long, and about 80 men can use them at once. All that the sweepers have to do is to run along the line and throw in earth and carbolic powder. Since this system has been in vogue there has not been the slightest odour apparent. The trenches have been visited daily once or twice by either the Hospital Assistant or myself. For the reception of urine, a number of flat gumlahs, one foot in diameter, were placed in the latrines. They were filled with sawdust (an idea suggested by reading Dr. Poore's paper in the *Journal of State Medicine* for January 1897). No smell was caused, and at the end of the day the sawdust was burnt. I have reason to think, however, that the men used trenches for urination to a great extent.

(3) A "pucca" incinerator not being considered advisable we built a small 'cutcha one in which condemned clothes and the other refuse of the camp were burnt.

7. Since the tanks were erected disinfection by steam of the men's clothing at least has been adopted on all occasions. Prior to this boiling or steeping in antiseptic solutions were employed, and these methods have been continued with regard to the women's clothing in the majority of instances. Women travelling alone could not be prevailed on to part with their clothing, and so steam disinfection was only used when they were willing to hand over their clothes to their husbands, etc.

I regret very much that I was unable to obtain a thermometer by which the exact heat in the tanks could be ascertained. From various observations (Parkes' *Hygiene*, *vide* pages 440 *et seq.*, etc.) I have calculated that with our pressure of 6 lbs. the temperature in the tanks rose to 220°—230° F., probably nearer the latter figure.

Taking the latest authority on the subject, Dr. W. R. paper on steam disinfectors in the May number of the

State Medicine, we find him stating "that many of the pathogenic organisms (*i.e.*, the non-spore bearing ones) have their thermal death-points for 10 minutes exposure at or below 60° C. (140° F.)." As the plague bacillus is a non-spore bearing pathogenic organism similar to the ones he mentions, I have but little doubt in stating that our steam disinfection at six pounds pressure for an hour was thoroughly efficacious with regard to the disease in question. Great care was taken, too, that the clothes be loosely tied up and loosely packed so as to ensure the penetration of the steam.

8. One of the hollow spaces between the rails near an engine-house used for working at the under parts of an engine proved, when filled with water from the adjoining hydrant, to be a most excellent swimming bath. Many of the men, however, preferred the shower bath afforded by the hydrant, and either method was perfectly satisfactory.

9. All trains coming here from Karachi were inspected on arrival. Obviously sick persons were removed to the hospital at once and the remainder of the 3rd and Intermediate passengers were carefully observed as they passed from the train into the landis.

First and second class passengers were invariably examined on the platform and passed, unless their condition or the state of their clothing was absolutely prohibitive. The persons booking from Khánpur were similarly inspected.

Every day at 9 A.M., after all clothes had been handed in for disinfection and every person had bathed, a thorough inspection of every person took place. Many cases of slight fever, especially in the earlier days, were detected, and these were either detained in special huts built for the purpose, or, if considered necessary, were taken to the hospital. When a passenger had thus been disinfected, bathed and passed, he had Khánpur stamped on the back of his ticket.

At 5 P.M., the passengers from the preceding mail and mixed trains were let off, each person being observed as he left the landing and his ticket examined for the stamp noted in order to assure us that the conditions of his detention had been fulfilled.

From April 8th to July 8th, 13,876 persons had been detained, etc., in the landis. In addition to this I inspected about 5,794 others on the platform, making a grand total of 19,670 inspected during that time.

Out of that number it was found necessary to admit into hospital under observation as suspicious 19 persons. Nine of these were actually sick, the remaining ten being their companions.

The nine cases are certified in the Admission and Discharge Book of the hospital as follows:—

Remittent Fever	...	...	...	...	4
Malarial cachexia	..	...	...	...	1
Bronchitis	...	...	...	...	1
Tubercle of lung	...	..	...	...	2
Heat apoplexy	...	...	...	...	1
TOTAL					9

All of these recovered with the exception of one of the cases of tubercle of the lung admitted into hospital in a moribund condition on the 4th July and who succumbed on the 6th.

No case of actual plague was detected during the period. The last case which affords grounds for the suspicion that it was a case of so-called pneumonic form of bubonic plague (so ably described by Childe and others, the reading of whose experiences bias me in this opinion) was a man who died on the 9th April and who was admitted with symptoms of fever and bronchitis on the 7th.

Every case admitted into hospital was treated with the same precautions which would have been observed in undoubted cases of bubonic plague.

A sepoy of the 25th Bengal Infantry proceeding on sick leave met with an accident at Hamai station. He arrived here suffering from acute synovitis (right knee) complicated by a suppurating wound which fortunately did not communicate with the joint. Dr. Raye permitted his admission into the Railway Hospital on the 25th April, and under treatment there he recovered so as to be able to proceed on his journey on the 15th of May.

In addition to these no less than 155 cases of fever were detected. These were trivial and mostly due to the heat of the journey, etc. Retention in the huts for the purpose built midway between the hospital and the landis for two or three days sufficed to prove the nature of the case, and these patients were discharged as soon as they had recovered. None of them ever required transference to hospital.

Surprise has been expressed at the small number admitted into hospital, but people are oblivious to the fact that natives, or in fact any one, will rarely travel when sick, and certainly not at such a time as the present, when detention, etc., were being enforced.

10. Female Hospital Assistant Hydari Begum who had been associated with me in the work of examining the trains since the 23rd February was, when this camp opened, placed in full charge

The women's enclosure.

of the female enclosure. Mr. Crosthwaite requested me, as he had so much to do with the men, to generally supervise all matters connected with the women and children.

Female Hospital Assistant Hydari Begum met the trains along with ourselves and took charge of the women's carriage at once. After detention commenced no inspection of women took place at the station, except in the case of 1st and 2nd class passengers, who were examined in the carriages. When the train had reached the siding, the women were taken off by the Assistant and her staff to the *zanana*. There she made her inspection, reporting at once if any of the women were ill, etc.

At the same time that the clothes inspection took place in the male landis, the Assistant and her staff made a complete examination of the women's kits. Clothes to be destroyed were separated from those for disinfection and this being done, the Assistant sent for me to come and decide compensation, etc.

On the occasions of my entering the *zanana*, the *purdah* women were placed in a screened hut, and queries, if necessary, transmitted through the Assistant.

Disinfection was carried out by boiling or by soaking in corrosive sublimate solution. Women very rarely trusted their clothes out of their sight even to their husbands, etc., but as often as possible this was done and the steam tank employed. Male passengers who had women-kind in the "*zanana*" were only allowed to converse with them at some distance from the entrance to the enclosure. They were freely permitted to do this as often as they chose.

With the exception of myself when summoned and accompanied by the Assistant, I have reason to believe that the rule excluding all male passengers from the precincts of the *zanana* has never been transgressed.

No cases of serious illness have been found among the women. A weakly infant born before its time and only 2 or 3 weeks old died shortly after its arrival at Khánpur on a very hot day. The matter was reported, and the usual precautions taken. On no less than two occasions have women been admitted into the *zanana* with babes born in the trains, and to these, as to all the passengers who came under her, was every possible attention paid by Hydari Begum irrespective of caste, creed or status.

I really cannot speak too highly of Hydari Begum's services. In a trying position she has shown both ability and tact.

Note.—There was a small latrine for females (see maps) near the *zanana*. This was worked on the original trench latrine system and proved satisfactory.

The two sets of family quarters were seldom occupied, and when so, were generally by persons of some education and position who conformed to the regulations, etc., as a matter of duty.

11. The matter of food has been a most serious one for every-body here. It is seemingly impossible to get good fresh meat during the hot weather. The shop-keepers were allowed at first to provide meat, but as daily complaints were made by the passengers, I inquired into the matter and was compelled to prohibit its sale in the lines. Vegetables are scarce and of inferior quality, and what was more serious, the atta, etc., sold by the banias had more than once to be condemned. All the best of the food-stuffs at Khánpur are exported, and the matter of the provision of a sufficient and good supply of food-stuffs ought to be primarily considered when such a camp is formed again, essential as it is to the health of all concerned.

12. I have in conclusion to thank Lieutenant J. G. Crosthwaite, Assistant Commissioner, I.S.C., for his many kindly services to me during our stay here together. He has worked indefatigably and has exhibited the most marked interest in the details of the work, much of which lay entirely beyond his province.

Additional Note.—Two days after Mr. Crosthwaite had handed over to me I was relieved by Surgeon-Captain H. Smith, to whom I showed all the details of the work, and who is now carrying it on.

Correspondence regarding the Disinfection of Railway Carriages.

No. 172, dated Allahabad, the 17th March 1897.

From—The Chief Secretary to the Government of the North-Western Provinces and Oudh.

To—The Secretary to the Government of India, Home Department.

I am directed to submit, for the information of His Excellency the Governor General in Council, the accompanying copy of a letter No. 136-XVI—404-B.—164, dated the 8th March 1897, and enclosure, to the address of the Agent, Bombay, Baroda and Central India Railway, on the subject of the disinfection of carriage used by a person suffering from a contagious disease.

No. ¹⁷⁵~~XVI—404-B.—164~~, dated Allahabad, the 8th March 1897.

From—The Secretary to the Government of the North-Western Provinces and Oudh.

To—The Agent, Bombay, Baroda and Central India Railway, Bombay.

I am directed to acknowledge the receipt of your letter No. 2107-T., dated 24th February 1897, forwarding a copy of the rules in

force on the Bombay, Baroda and Central India Railway for the disinfection of a carriage used by a person suffering from a contagious disease. You say that these rules apply in the case of persons suffering from bubonic plague, and that they are considered adequate.

2. Rule 10 (*f*) of the rules in question provides that "when evacuations, etc., of the infected person have contaminated the floor or seats of a carriage, but not otherwise, it should be washed with carbolic acid solution, consisting of a wineglassful of carbolic acid mixed in a gallon of boiling water." This rule falls far short of the rules in force on other railways (for instance, the North-Western Railway, the Oudh and Rohilkhand Railway, and the Indian Midland Railway), which provide that when a carriage is being disinfected every portion of the woodwork must be washed over with boiling water, containing in each gallon a wineglassful of carbolic acid. It is obviously insufficient to wash the floors and seats only when they have been contaminated by evacuations, etc. Moreover, it appears from the rules in force on the Bombay, Baroda and Central India Railway that a carriage occupied by a person suffering from bubonic plague may be again brought into use immediately the disinfection has been completed.

3. As the ordinary rules on the subject of disinfection of carriages in force on the Bombay, Baroda and Central India Railway do not adequately provide, in the opinion of the Sanitary Commissioner of these provinces, for an emergency such as the present, and as you express no intention of adopting the precautions considered necessary by this Government, the Lieutenant-Governor and Chief Commissioner, acting on the opinion of his professional advisers, and being satisfied, that the procedure adopted by your railway is dangerously insufficient, is constrained to issue orders which have the force of law on the subject under Act No. III. of 1897 for observance by railway officials of the Bombay, Baroda and Central India Railway, serving in these provinces. I am to forward for your information a copy of the orders issued, and to say that spare copies will be supplied for distribution and for affixing to notice boards at the various railway stations. The Railway Company, which comes under the definition of the word "person" used in sections 2 and 3 of Act No. III of 1897, will be held responsible for the due observance of the orders, and I am now to call upon you to take effective measures to secure compliance with the orders on the part of subordinate officials.

4. I am to remark in conclusion that rule 10 (*g*) of the rules forwarded with your letter under reply, which lays down that when disinfectants are required, application should be made to the District

Traffic Superintendent for them, is not sufficient, unless care is taken that a proper supply of disinfectants is kept at each station for use, whenever occasion may arise.

Orders issued under Act No. III of 1897 (*vide* G. O. No. $\frac{136}{XVI-404-O-104}$), dated 8th March 1897).

In exercise of the power conferred on this Government by Notification No. 302, dated 4th February 1897, of the Governor General in Council, the Lieutenant-Governor of the North-Western Provinces and Chief Commissioner of Oudh is pleased to make the following orders under Act No. III of 1897 (an Act to provide for the better prevention of the spread of Dangerous Epidemic Diseases) for observance by the Bombay, Baroda and Central India Railway Company within the limits of the North-Western Provinces and Oudh :—

1. When a case of bubonic plague has been detected in a railway carriage, the carriage shall be disinfected in the manner provided in the rules dealing with ordinary contagious diseases.
2. In addition, carbolic acid powder shall be sprinkled on the floors and seats, or the interior woodwork of the carriages shall be thoroughly washed with a solution of perchloride of mercury (1 in 1,000) or with a carbolic acid solution (a wineglassful to a gallon).
3. The doors and windows shall then be thrown open, and the carriage kept in a siding unused for ten days.
4. A sufficient supply of disinfectants shall be kept at all stations.

No. 98.

No. 349-R.T., dated Simla, the 21st April 1897.

From—G. A. ANNERSON, Esq., Under Secretary to the Government of India, Public Works Department,

To—The Joint Secretary to the Government of Madras, Public Works Department, Railway Branch.

„ The Secretary to the Government of Bombay, Public Works Department, Railway Branch.

„ The Secretary to the Government of Bengal, Public Works Department.

„ The Chief Commissioner of Assam.

„ The Resident at Hyderabad.

„ The Agent to the Governor General in Rajputana.

„ Director-General of Railways.

„ The Consulting Engineers to the Government of India for Railways, Calcutta, Lucknow, and Assam.

The Government of India have had under consideration the advisability of cleansing all vehicles conveying passengers and their

to North-Western Provinces Government. Advisers of Government of India consider 48 hours disuse of railway carriage after disinfection sufficient, and will be glad if North-Western Provinces Government will modify their orders in accordance with orders in the Public Works Department letter.

No. 1497, dated 22nd May 1897.

No.

From—The Secretary to the Government of Bombay, Public Works Department, Railway Branch,

To—The Secretary to the Government of India, Public Works Department.

With reference to your letter No. 349-R. T., dated 21st April 1897, I am directed to forward, for the consideration and orders of the Government of India, an extract of a report by the General Traffic Manager, Great Indian Peninsula Railway Company, No. 2136, dated 12th May 1897, bringing to notice certain difficulties on that railway in carrying out the orders contained in your letter quoted above.

2. The infected area for the Great Indian Peninsula Railway ends at Manmad Junction on the North-East and Dhond Junction on the South-East line and the medical inspection stations nearest to these on the boundaries of this Presidency are Bhusawal and Hotgi Junctions.

3. It must be understood that on the Great Indian Peninsula Railway if any carriage is found to have a case of plague in it or a suspicious case, it is at once cut off the train, and disinfected, in accordance with the rules, so that the train, at any time, consists of carriages of which there is no reasonable suspicion that they contain or have contained persons suffering from plague.

4. I am accordingly to ask if, in the opinion of the Government of India, all practicable and reasonable security will not be given—

(a) if every carriage, in which a suspicious case is found, is at once cut off and disinfected; and

(b) every carriage, in which no such case has been found, is disinfected at the end of its journey.

This it appears would give practical security whilst it would obviate the difficulties and delays that the present orders must cause.

5. As regards the other point raised, *i. e.*, the burning of cushions and repainting the interior of first and second class carriages, paragraph 3 (b) (iii) of your letter. This is understood to apply only to carriages in which persons who are undoubtedly suffering from

plague had been travelling. Such cases would be exceedingly rare, and unless on medical inspection the passengers were found to be actually suffering from plague and were in consequence removed from the train, their detection would be practically impossible.

I am to say that this Government of course understands that in issuing this order the Government of India were probably acting on expert advice ; but I am to ask that this matter may be reconsidered. Railway cushions in India besides being often, if not generally fixtures, are almost always covered with leather, universally so on the lines under the control of this Government, and they are also in general very dry. They are accordingly most unlikely to harbour plague germs and their destruction whilst a very costly measure and one which would render useless for a considerable time the carriage to which they pertained, would apparently be productive of little real benefit.

Extract paragraphs 1 to 6 and 8 from a letter No. 2163, dated 12th May 1897, from the General Traffic Manager, to Agent, Great Indian Peninsula Railway.

With reference to the Resolution of the Bombay Government, No. 1207 of the 27th ultimo, as to the disinfection of all vehicles conveying passengers and their luggage from districts affected with the plague into other parts of India, copy of which you sent me under your memorandum No. B.-18-6560 of the 5th instant, I beg to point out that if the Resolution is carried out as it at present stands, it will disorganise the whole of the passenger train service. We cannot, for want of sufficient spare stock, keep spare trains at the places where the disinfection of all vehicles and of the luggage, whether they have contained a case of plague or not, has to be done. It is to be understood, I presume, that parcels are included in the term luggage. If the latter requires to be disinfected, the former certainly does also.

2. If we have to keep trains standing at the station until they and the passengers and their baggage and the parcels have been disinfected, very considerable delay will result.

As you are aware, when a heavy mail steamer comes in, we have on occasion to run as many as three and sometimes four mail trains to the North-East line and two to the South-East line, and these require almost the whole of one available upper class stock, so that it would be impossible for us to have spare trains into which to transfer passengers, and therefore the trains will have to be delayed while they are being disinfected,* which, in the case of many of them, will be late at night, during which passengers will have to remain on the

platforms, and, more especially in the monsoon, it will, I am sure, lead to great delay and much inconvenience to passengers.

3. I have also to draw attention to the third section of clause 6 of paragraph 3 in which the following appears :—

“In the case of first and second class carriages, which afford greater facilities than third class compartments, for the harbouring of plague germs, it will be necessary, if the carriages are contaminated, to burn the cushions, and to disinfect the woodwork, in the manner indicated above, and to repaint the interior.”

It would seem that this is a very serious matter if we are required really to carry it out.

I dare say the Locomotive Superintendent will have something to say as to this order to burn cushions and repaint the interior of carriages in which plague cases have been detected.

But I may point out that the cushions are not in all cases loose, but are really padded backs, and in some cases padded seats, so that it means that the carriages will have to be dismantled by competent workmen, who will have to be employed for the purpose, at the place where the disinfection has to be done.

4. I have not issued any orders at present, and for the reason that I am of the opinion that what is asked is practically impossible and because I hope you will be able to ask Government to reconsider the order.

We must of course disinfect all carriages in which cases have been detected, but, while that is troublesome enough, it is what we do now, and have always done, since the plague began. The burning the cushions and repainting the interior of first and second class carriages seems not to be really necessary.

5. With regard to the Bombay, Baroda and Central India Railway action in the matter, they are more favourably placed than we are. The whole of their broad-gauge line is in the infected area, and passengers have always to change, in consequence of the break of gauge, at Ahmedabad. I find that they have proposed that at that place, which is within the infected area, the passengers shall change into the disinfected trains.

But the Bombay, Baroda and Central India Railway are in an essentially different position on account of the break of gauge, to that in which we are placed, and I believe that the Bombay, Baroda and Central India Railway will protest if they are required to disinfect their trains, and change the passengers at any station other than Ahmedabad, for they will then be in somewhat the same position as we are.

6. The Government of India say that the orders need involve no detention to the vehicles beyond that necessary for the actual disinfection, the inspection of the occupants and the disinfection of their baggage. But it seems to have been overlooked that this will take, with a train of sixteen or eighteen or twenty vehicles, such a delay as will upset all possible hope of punctuality, and our trains will miss connection with those of other railways at junctions, and the confusion will be very great. The insides of the carriages are to be washed with the prescribed disinfectant applied with a mop, the doors and windows to be opened and exposed to the air. This with the disinfection of the baggage which must first be removed from the carriages, and the subsequent drying of the interior of the carriages and return of the baggage, cannot be done in a little while as seems to be considered possible by the Government. The public will decidedly object to return into carriages which are wet with this not agreeable disinfecting prescription. The difficulty will be all the greater at night, when especially first and second class passengers will object to being turned out in, during the rains, the downpour which we frequently have to encounter, and which of itself will make the drying of the carriages a long process. These are not fanciful objections but are real difficulties.

* * * * *

8. I hope, however, that the Government of India may be pleased to modify the instructions.

No. 102.

Telegram No. 462-R. T., dated 5th June 1897.

From—Works, Simla,

To—Works, Railway, Bombay.

Your letter No. 1497, dated 22nd ultimo. Relaxation suggested in paragraph 4 (a) and (b) sanctioned. Rule 3 (b) (iii) applies only in cases where, in opinion of competent medical officer, person removed from carriage was suffering from plague. Letter follows.

No. 103.

No. 463-R. T., dated 7th June 1897.

From—The Government of India, Public Works Department,

To—The Secretary to the Government of Bombay, Public Works Department, Railway Branch.

I am directed to acknowledge the receipt of your letter No. 1497, dated the 22nd May 1897, forwarding, for consideration and orders, an extract from a report by the General Traffic Manager, Great Indian Peninsula Railway Company, bringing to notice certain difficulties in giving effect on that railway to the orders conveyed in Government of India letter No. 349-R. T., dated the 21st April 1897, in regard to

the disinfection of railway carriages conveying passengers and their luggage from districts infected with bubonic plague.

2. In reply I am to say, in continuation of my telegram quoted

No. 462-R. T., dated the 5th June 1897.

Your letter No. 1497, dated 22nd ultimo. Relaxation suggested in paragraph 4 (a) and (b) sanctioned. Rule 3 (b) (iii) applies only in cases where, in opinion of competent medical officer, person removed from carriage was suffering from plague. Letter follows.

in the margin, that having regard to the fact that the plague has materially abated and that the risk has consequently diminished in the infected area on the Great Indian Peninsula Railway, the Government of India have no objection to the relaxation of the rules in question to the extent proposed in paragraph 4 (a) and (b) of your letter on the distinct understanding that, upon any recrudescence of the plague in virulent form, the rules which

have been prescribed in the Government of India letter No. 349-R. T., dated the 21st April 1897, should be rigidly enforced in their entirety: I am however to point out that the proposal in paragraph 4 (a) corresponds with the procedure stated in paragraph 2 of Government of India No. 349-R. T., as being the preferable alternative. A reference on this point, therefore, would seem to have been unnecessary.

3. With reference to paragraph 5 of your letter, I am to say that, as clearly shown under heading (b), the rule regarding the burning of the cushions and repainting the interior of first and second class carriages, contained in paragraph 3 (b) (iii) of the Government of India letter of the 21st April last, applies only to undoubted cases of plague, and the measures prescribed by the Government of India should be enforced whenever, in the opinion of a competent medical officer, the person removed from a carriage was suffering from plague.

4. In conclusion, I am to say that the Government of India notice that, as stated in paragraph 4 of the enclosure to your letter under reply, the orders contained in their letter No. 349-R. T., dated the 21st April last, have been held in abeyance up to the present, and I am to request that, with the permission of His Excellency the Governor in Council, very grave notice may be taken of this deliberate disobedience of orders.

Papers relating to the Protection of Mahableshtar.

Resolution of the Government of Bombay, No. 1880—1308-P., dated the 6th April 1897.

READ—

Letter from the Superintendent of Mahableshtar, No. 472, dated No. 104, the 25th March 1897.

Submits a set of rules under Act III of 1897 for Mahabaleshwar, and request sanction thereto.

RESOLUTION.—The following rules applicable to quarantine at Panchgani and Mahabaleshwar have been communicated to the Superintendents of those places with a request that copies might be posted up at the quarantine stations and other conspicuous places :—

Public Notice.

The following temporary regulations are prescribed by Government under Act III of 1897 :—

1. The Chief Plague Authorities at Mahabaleshwar shall be the Superintendent and Mr. H. N. Alexander, and at Panchgani the Superintendent and Surgeon-Captain Bedford.

2. All medical subordinates working under their orders and all officers or persons specially appointed by them in writing shall be plague authorities for the purposes of those and all general rules under Act III of 1897.

3. Quarantine camps shall be established at or near Panchgani and Mahabaleshwar by the Chief Plague Authorities of those places and shall be managed by the Chief Plague Authorities or persons specially deputed by them for the purpose. Every person placed in quarantine shall be bound to reside in the quarantine camp assigned to him or her and to obey the regulations framed by the Chief Plague Authorities for that camp.

4. All persons coming up from the plains by any road or path shall be quarantined unless either specially or generally exempted.

5. The following is a list of persons generally exempted :—

(1) All Government servants travelling on duty.

(2) All servants of Europeans who produce certificates from their employes or a medical man that—

(a) they have been inoculated, or

(b) they have been in good health for ten days previously and will on arrival be sent to the Superintendent, or other officer appointed by him for the purpose, for medical inspection at such times as the Superintendent prescribes.

(3) All villagers in good health coming up from adjacent villages where there is no plague with supplies.

(4) All cart-drivers in good health, provided, however, that cart-drivers coming from Poona *via* Wai shall, with any passengers in their carts, be quarantined.

(5) All drivers and syces in good health belonging to public and private conveyances (drawn by horses or mules).

- (6) All Europeans in good health.
- (7) All Native gentlemen and their families in good health travelling in conveyances drawn by horses or mules and going either to hotels or bungalows. (The Superintendent shall have power to decide whether a house is a bungalow or not for the purposes of these rules).
- (8) All well-known and respectable traders in good health.

N.B.—By "good health" is meant "free from plague or reasonable suspicion thereof."

6. Special exemption may be made by the Chief Plague Authorities, who shall have wide discretionary powers and will in exempting people be guided chiefly by the facilities available, in view of the person's position or rank and his or her place of residence, for keeping him or her under observation, for preventing the concealment of cases of plague amongst such persons; and for checking the spread of plague if a case or cases should occur.

7. In making special exemptions Chief Plague Authorities may attach conditions to the exemption. All persons thus exempted shall be bound to comply with those conditions.

8. All persons generally exempted shall be bound, if ordered to do so by any Plague authority, to present themselves for medical examination at the places and times prescribed by that authority and for such number of days after arrival as may be prescribed.

9. All persons shall be bound, if called upon to do so, to submit to medical examination by a Plague authority who is a medical man, to answer truly any question put by any Plague authority, as regards names, addresses, health, baggage, and places recently visited.

10. No persons coming up from the plains shall wilfully evade quarantine or inspection at the posts established for the purpose. Quarantine shall continue for such period not exceeding eight days as may be ordered in each case by the Chief Plague Authority in charge of the quarantine camp. Should a case of plague occur at a quarantine camp, quarantine may continue for such further period not exceeding eight days as the Chief Plague Authority may order.

11. Persons coming from Panchgani to Mahabaleshwar shall not on arrival be subjected to quarantine, unless there is, in the opinion of a Chief Plague Authority, reason to suppose that they have escaped quarantine or inspection at the former place.

12. All occupiers of houses or managers of hotels shall be bound, when called upon by the Superintendent of Mahabaleshwar or

Panchgani, to supply a true complete list of residents in their houses or hotels and compounds.

2. As regards the other matters referred to, they seem to be sufficiently provided for in the rules published with Government Resolution No. 1728—1201-P., dated 29th March 1897.

No. 105.

No. 979, dated Mahableshwar, the 8th June 1897.

From—H. N. ALEXANDER, Esq., Superintendent of Police, attached to the Secretariat,

To—The Secretary to the Government of Bombay, General Department.

In obedience with instructions conveyed in paragraph 4 of Government Resolution No. ¹⁴⁹⁷/_{955-B}, dated 17th March 1897, I took charge of the duties of Chief Plague Authority at Mahableshwar on the 18th March 1897. These duties terminated on the 29th May. Under the rules in force few persons were prevented from entering Mahableshwar direct: persons admitted, however, were subject to daily inspection at the Civil Hospital until eight days had elapsed from the time they had left their home. It was really only persons over whom it would have been almost impossible to keep any real supervision, who had to finish their eight days in the observation camps before they were admitted into Mahableshwar. I have the honour to submit a few remarks on the working of these rules.

2. *General arrangements.*—On taking charge I at once began making enquiries regarding all the possible ways by which people might get into Mahableshwar and wrote to the Superintendent of Police, Satara, for police. Mr. MacTie supplied me promptly with 2 jamadars, 3 naicks and 27 constables, and this force, together with 2 jamadars and 5 constables already present on plague duty, enabled me to establish what I considered would be an effective protection to Mahableshwar. In consultation with Surgeon-Major Monks I arranged as follows:—

- (a) The Chorpani Camp continued to work as it was doing when I took charge. This camp is situated $2\frac{1}{4}$ miles from Mahableshwar on the Satara Road. It was, when I took charge, being used by Surgeon-Major Monks as an observation camp. His intention was to use it as such until plague cases appeared when it was to be turned into a hospital camp. Surgeon-Major Monks had caused a camp to be erected at Machutra, $4\frac{1}{4}$ miles from Mahableshwar on the Satara Road, which was to be used as the observation camp, when Chorpani became the hospital camp.

- (b) The Ling Mala Post, 3 miles from Mahableshwar on the Panchgani Road, started by Surgeon-Major Monks, was maintained. To this post, however, I added two outposts, one on Kate's point road which commanded foot paths leading from the Krishna Valley and one, about a mile from the Ling Mala Post in the direction of Panchgani, which commanded a small though much-used foot-path leading into Mahableshwar.
- (c) I established a post at old Mahableshwar to prevent persons coming up from the Krishna Valley and thus getting into Mahableshwar.
- (d) I enlarged the small post at Metalya, 4 miles from Mahableshwar on the FitzGerald Ghât road, started by Surgeon-Major Monks, and added two outposts, one at the head of a much-frequented jungle path leading from Wara to the FitzGerald Ghât road and one at the place where the Par Ghât path crosses the FitzGerald Ghât road.
- (e) Lastly I established a post near Babington point which commanded paths leading up from the Royana Valley. The jamadars placed by Surgeon-Major Monks in charge of Chorpani Camp and Ling Mala Post remained in their places and jamadars were appointed at Metalya and Babington Point. These jamadars were instructed to submit to me daily reports showing who had come to their posts and how they had disposed of them. The Babington Point Post had little to do, as the paths leading up from the Royana Valley are hardly good enough for pack carriage and in consequence only persons coming up with supplies passed by this way. Neither had the Metalya Post much to do as few passengers came into Mahableshwar from the Konkan. There was, however, a good deal of cart traffic with which the post had to deal. The brunt of the work fell chiefly on the Ling Mala and Chorpani Posts.

3. *Inspection at the hospital in Mahableshwar and personal supervision.*—On receipt of daily reports above alluded to, I entered all the names of those persons admitted in Mahableshwar in a book which I sent to the hospital the first thing in the morning. This book was extremely simple. In it was entered the name of the person and his residence in Mahableshwar, the place he came from, the date he left that place, the date of his arrival in Mahableshwar, and the date of his arrival in Mahableshwar, and the date up to which he had to

present himself at hospital. This book was returned to me in the middle of the day, and at a glance I could see who had failed to attend for inspection. I then either wrote to the people pointing out that either they or their servants had failed to attend, or sent the police round to ascertain the cause for non-attendance. I had considerable advantage in this part of my work, as I know the place well and also most of the European residents, and further, being a police officer, the local police assisted me in every way doing their work extremely well. In order to get correct reports I had, however, at first to inspect my two chief posts, Lingmala and Choar Pani, generally twice a day. This continued till I was satisfied that the jamadars really understood their work. After that and till the end I found that one inspection of these two posts daily was sufficient. My other posts I visited when I could find time.

4. *Measures to prevent oppression by the Police.*—Mahableshtar is to a great extent dependent for its supplies on the villagers who come up the hill daily and who had to pass my posts. I was much afraid that such persons might be interfered with by the police, and I therefore made a point of frequently conversing with these people and asking if they had any complaints to make. There were a few complaints at first, but I was now able to put a stop to any unnecessary interference by the police, and all complaints ceased which speaks well for the discipline maintained by the jamadars.

5. *Dandeghar observation Camp.*—This camp which was close to Panchgani was opened on the 2nd April. It was the duty of the officer in charge to settle who was to pass into Mahableshtar and who was to remain in the camp. He issued red tickets to those who were to enter Mahableshtar, yellow tickets to those who had been in quarantine and blue tickets to cartmen. Surgeon-Major Monks and I came to the conclusion that it would be wise to keep the Ling Mala Post as a further check first, in case the officer at Dandeghar should make any mistake, secondly, because people might evade Dandeghar, and thirdly because it was easier to ascertain the names and addresses of people near at hand than to be dependent on a place so far off as Dandeghar for the information. In every respect the place worked well.

6. *Cart traffic.*—Cartdrivers with carts were under the rules admitted straight into Mahableshtar. They were directed, however, to move away as soon as possible after they had completed their business. As an extra precaution all cartmen moving from the Konkan to the Satara District and *vice versa*, and who did not wish to stop

in Mahableshwar, were escorted through and not allowed into the bazaar. Persons were escorted through in a similar manner if they did not wish to stop in Mahableshwar.

7. *Machutra Camp*.—This camp was first used on the 31st March. It became the observation camp and the jamadar in charge of Chorpani took charge of it. It remained in use till quarantine arrangements were stopped on the 29th of May.

8. *Plague case*.—Only one case of plague occurred. On the 27th March a Marwari and two women arrived from Poona and were sent to the observation camp at Chorpani. One of the women was suffering from fever at the time, which proved to be ordinary fever. On the afternoon of the 30th the other woman got fever. I heard of this on the morning of the 31st and, finding that the temperature was unusually high, came to the conclusion that it was probably a case of plague though no glandular swellings were then observable. Surgeon-Major Monks and I agreed that it would be unwise to run any risks, and we settled to move all the persons, over 70 in number, who were under observation in the camp, to the Machutra Camp. This, with the assistance of the chief constable, I arranged for, and by the evening the Machutra Camp was in working order. The two sick women and their relatives were kept at Chorpani and strict quarantine was observed at both camps. The woman died of plague the next day and her corpse was burnt just outside the camp. The inmates of the camp were detained for nine days, and I am glad to say no further plague cases occurred.

9. *Cholera case*.—There was one case of cholera in the Machutra Camp which ended fatally. A man arrived from the Satara direction on the 15th May suffering with cholera. He was detained and treated and there appeared to be every hope that he would recover, when he suddenly got relapse and died on the 21st idem.

10. *Persons under observation*.—About 870 persons were detained in the observation camps and 2,200 attended at the hospital for periods varying from one to eight days.

11. *Observation camps*.—The two camps erected here consisted of grass huts. In the Chorpani Camp there were two long wards partitioned off into rooms with some separate huts for attendants. The Machutra Camp consisted of huts divided from one another by a considerable space. I consider the Machutra Camp far superior of the two for quarantine purposes, as in the case of an infectious disease being discovered in a hut it could be destroyed, whereas in the case of works this was impossible. The Chorpani Camp was constructed as

an hospital, and it might be argued that only persons suffering from infectious diseases would occupy the rooms. This may be, so that I can only say that it was a great satisfaction to me, as it would be I fancy to any one actually engaged in plague work, to see any place or thing suspected of harbouring microbes destroyed by fire.

As regards the huts themselves I consider that the walls and roof should be double. It is cold at night on the Mahableswar Hills and these huts were decidedly draughty. Single-sided huts are hardly sufficient protection against wind or rain.

Fearing rain towards the end of May we had the huts at Machutra double walled and roofed. Surgeon-Major Monks had erected an air-tight chamber at Chorpani Camp for fumigating purpose, and at both camps appliances for boiling clothes were available. A good deal of work in this connection was carried out.

12. *Dodges resorted to by the public to avoid detention in camp.*—The police has to keep their eyes open at the post as people tried all sorts of dodges to get past them and thus avoid being detained in the camps.

The public soon learnt the rules and the first dodge was to say that eight days had elapsed since the person had left his home. In these cases it generally fell to my lot to determine when they did leave their homes. Knowing that local villagers could not get by the post without trouble, people would appear at the post carrying a bundle of grass or sticks and pretend that they came from close by. One man, a darzee, came up in a carriage drawn up by two horses. As he appeared a bit confused when asked for his address, he was detained, and it turned out that he was simply going to the bazaar and had managed to get a seat in a phaeton from Wathar for Rs. 2 with two other persons who had paid Rs. 3 each. In the slack time the proprietors of carriages are glad to take anything. Nearly everyone who was stopped had a piteous tale to tell showing how absolutely necessary it was for him to get at once into Mahableswar. The orders given to the jamadar were simple. When they were in doubt they were to detain and report to me. This they did willingly as it took the responsibility off their shoulders.

13. *Hospital Assistants.*—The work done by the Hospital Assistants both at the Civil Hospital, where the daily inspection went on, and at the camps and posts, where they were in medical charge, was extremely good. They gave me every help and worked most cheerfully.

14. *Police Officers.*—I think it right here to ask for some recognition of the services of the jamadars in charge of the Machutra, Ling Mala and Metalya Posts. The two former had exceedingly hard work which they did very well. The latter had less to do, but still he was in charge of an important post, and what he had to do he did well. The Hospital Assistants on this duty got an addition of Rs. 15 per mensem to their pay, and I should be glad if Government would grant the same to these jamadars. This work was very hard and was really of a very responsible character; it was further work where subordinates are liable to be tempted and to misuse the powers given to them. To the best of my knowledge and belief these three men were perfectly straight in their dealings, and I have no hesitation in saying that they did their work most efficiently.

Papers relating to Pilgrimages in India.

PROHIBITION OF PILGRIMAGES IN THANA AND POONA DISTRICTS.

Resolution of the Government of Bombay, No. 1137—634-P, dated the 3rd March 1897. No. 106.

RESOLUTION.—As a temporary regulation, His Excellency the Governor in Council is pleased, under Act III of 1897, to prescribe that all pilgrimages and fairs are prohibited in the Thana and Poona Districts pending further orders. If the Collectors of those districts recommend any exemptions from this rule, they should state their reasons fully.

THE PILGRIMAGE TO JAGANNATH.

Telegram dated Darjeeling, the 5th May 1897.

No. 107.

From—The Secretary to the Government of Bengal, Financial Department,

To—The Secretary to the Government of India, Home Department.

Commissioner, Orissa, reports that contractors, Mahanadi, and other large bridges on East Coast Railway intend to import four or five thousands masons or nachvies from Surat *via* Wadi and Bezwada and that Bombay pilgrims will come to Puri by same route and probably go on to Calcutta. Opening East Coast Railway has placed Cuttack within four days of Bombay, and Lieutenant-Governor thinks substantial danger of plague being imported into Orissa and spreading to Calcutta which has constant and large passenger traffic with

Orissa. His Honour suggests therefore that Government of India should take steps to prohibit employment labourers or masons from Surat or Bombay Presidency on East Coast Railway and should move Madras Government to open first class inspection station at Bezwada where present inspections reported ineffective by Commissioner. Failing this Bengal Government will be compelled to start inspection station on lines of Khama at Khurda Road Junction on East Coast Railway for Puri. Lieutenant-Governor would press upon Government of India that case of Surat labourers is parallel to that of Mecca pilgrims and Uganda labourers and constitutes real danger to this Province.

No. 108.

Telegram No. 1468, dated Simla, the 8th May 1897.

From—The Secretary to the Government of India, Home Department,
To—The Secretary to the Government of Madras, Local and Municipal Department.

Bengal Government reports that considerable traffic is likely between infected areas in Bombay Presidency and Cuttaek *via* Wadi and Bezwada owing to impending fairs at Puri and importation of masons for work on bridges on East Coast Railway. In view of this circumstance Government of India would be glad if Madras Government would inform them by telegram of the nature of medical inspection at Bezwada.

No. 109.

Telegram No. 1485, dated Simla, the 11th May 1897.

From—The Secretary to the Government of India, Home Department,
To—The Secretary to the Government of Bengal, Municipal and Financial Department, Darjeeling.

Your telegram of 5th, regarding masons from Surat for East Coast Railway. Public Works Department have telegraphed to ascertain whether masons are being imported in large numbers, which seems doubtful; if so, enquiry will be made as to whether they cannot be got elsewhere, and if not, precautions will be taken. Meanwhile Madras Government has been asked about character of inspection at Bezwada. Pilgrims from Bombay Presidency to Puri should be segregated in observation camp on arrival.

No. 110.

Telegram, dated Ootacamund, the 15th May 1897.

From—The Secretary to the Government of Madras, Local and Municipal Department,

To—The Secretary to the Government of India, Home Department.

Medical inspection of railway passengers now conducted at Kondapalli, not Bezwada, by Commissioned Officer assisted by two

Hospital Assistants and trained female nurse. Goods are examined at Bezwada under direction of Civil Apothecary superintended by the Kondapalli Commissioned Officer.

Telegram No. 1542, dated Simla, the 20th May 1897.

No. III.

From—The Secretary to the Government of India, Home Department,

To—The Secretary to the Government of Bengal, Financial Department.

Continuation my telegram 1496, dated 14th. Following telegram, dated 15th, received from Madras Government :—*Begins. Ends.*

No. 275-T. M., dated Darjeeling, the 31st May 1897.

No. II2.

From—H. H. RISLEY, Esq., C.I.E., Secretary to the Government of Bengal, Financial Department,

To—The Secretary to the Government of India, Home Department.

With reference to the correspondence ending with your telegram No. 1542-Sanitary, dated the 20th May 1897, regarding the precautions necessary to guard against the introduction of the bubonic plague into the districts of Orissa, I am directed to submit, for the consideration of the Government of India, the accompanying copy of a letter from the Commissioner of Orissa, No. 91-M., dated the 20th April 1897, with which this correspondence originated.

2. In paragraph 5 of his letter the Commissioner lays stress on the danger of plague being imported into Orissa by pilgrims coming from the Bombay Presidency to Puri during the ensuing Car festival and being eventually communicated to Calcutta which has a constant and large passenger traffic with Orissa. These pilgrims will come to Puri either by the Great Indian Peninsula Railway, the Nizam's Railway and East Coast Railway *via* Wadi and Kondapalli, or by the Southern Mahratta line and East Coast Railway *via* Hotgi and Dharwar. The Bombay Government have intimated that inspections at Dhond on the Dhond and Manmad Section of the Great Indian Peninsula Railway are about to be discontinued, and the Resident at Hyderabad reports that the Medical Staff employed on plague inspection at Wadi, the junction of the Great Indian Peninsula Railway with the Nizam's Railway consists of two hakims, one lady doctor and two dressers. Unless, therefore, the Government of Bombay have inspections at Hotgi and Dharwar which command the approach to the Southern Mahratta Railway, there will, after the Dhond inspections are stopped, be nothing to prevent people from coming round by that railway and evading inspection at Kondapalli. They would no doubt be inspected at Bezwada, but it appears from your telegram

of the 20th instant that inspections at this place are conducted by a Civil Apothecary alone and cannot therefore be fully relied on.

3. The most effective means of guarding against the dangers arising from the influx of Bombay pilgrims to Puri would undoubtedly be to prohibit the sale within the Bombay Presidency and Sind of railway tickets to Khurda Road and all stations on the East Coast Railway between that place and Bezwada. If the Bombay pilgrims want to get to Puri in any other way than by the routes mentioned above, they must go round by Calcutta. In that case they will have to pass the Khana inspection station on the East Indian Railway which commands the approach from the Bengal-Nagpur Railway, and will take so long over the journey that the normal period of incubation will have expired before they reach Calcutta.

4. If the Government of India accept this view of the matter, I am to suggest that the accompanying draft notification which is based on the notification recently issued in the case of Hardwar should be published by the Government of India under the Epidemic Diseases Act. The Lieutenant-Governor does not think it necessary that pilgrims from other parts of India should be prevented from visiting Puri provided that pilgrimage from Bombay and Sind is restricted in the manner proposed.

5. Meanwhile I am to add, with reference to the concluding lines of your telegram of the 11th instant, that the Commissioner of Orissa has been requested to draw up a complete scheme for forming an observation camp in which the pilgrims arriving for the Rath Jatra from the direction of Bombay will be segregated and kept under observation for 10 days.

No. 91-M., dated Cuttack, the 20th April 1897.

From—H. G. COOKE, Esq., C.S., Commissioner of the Orissa Division,
To—The Secretary to the Government of Bengal, Municipal Department.

I have the honour to enclose copies of a letter from the Magistrate of Cuttack and of its enclosure, a letter from the Civil Surgeon of Cuttack on the subject of precautions necessary to guard against the introduction into Cuttack and, I may add, into Puri and Calcutta of the bubonic plague.

Copies of the enclosures
are not sent herewith.

2. Bombay is at present something over four days' journey by rail from Cuttack, and the only place where any precautionary measures are taken at present is Beznada on the East Coast Railway, about 36 hours' journey by rail from Cuttack. The adequacy of the

means taken at Bezwada may be gathered from the fact that the Civil Surgeon of Cuttack receives letters and telegrams calling attention to people by name who appear to the medical officer at Bezwada to be suspicious or doubtful.

3. As to the danger of infection being introduced from Bombay to this place, the Superintending Engineer of the Bengal-Nagpur Railway assures me that many of his principal contractors are Suratis, and that from thence will come as many as four or five thousand masons who will be employed on the great bridges that are to be built across the Mahanadi and other large rivers near Cuttack.

4. Should the disease develop in Cuttack, there is a very appreciable risk of its being carried thence to Calcutta, as there is a large population of Uriyas constantly going to Calcutta for employment and returning after they have saved a little money and being replaced by others, so that the stream of emigrants is constant towards Calcutta.

5. There is even a greater danger than this which arises from the pilgrims to Puri who are recruited to some extent from Bombay. Should the disease break out at the great Car festival at that place when thousands of pilgrims assemble, it might be communicated to any part of India by the pilgrims on their return journey. Amongst other places, Calcutta would be liable to this danger as pilgrims from Puri might elect to return that way to visit other places of pilgrimage, such as Benares and Hardwar, for it is a common practice with pilgrims to visit several sacred places in a single tour.

6. There is no doubt that Jatni or Khurda Road station, which is where the Puri branch of the East Coast Railway leaves the main line, is the best place for examining and detaining suspicious cases, and I do not think that it would be possible to make the conditions too stringent, especially in view of the Car festival in July next. The Khurda Road station is about four days by rail from Bombay, and as the disease takes at least seven days and possibly twelve days to manifest itself, no half measures such as appear to be adopted at Bezwada are adequate.

Draft Notification.

Whereas the Governor General in Council is satisfied that there is danger of an outbreak of plague if persons residing or staying in the Bombay Presidency or Sind assemble at Puri to attend the Car festival in the present month of June and the ensuing month of July.

In exercise of the powers conferred by section 2, sub-section (1) of the Epidemic Diseases Act (III of 1897) the Governor General in Council is pleased to direct that no tickets to travel by railway to Bezwada and the stations on the East Coast Railway between Bezwada and Bhubaneswar shall be sold within the Bombay Presidency and Sind from the 24th day of June 1897 to the 8th day of July 1897.

No. 113.

Telegram No. 1686, dated Simla, the 14th June 1897.

From—The Secretary to the Government of India, Home Department,
To—The Secretary to the Government of Madras.

Correspondence ending your telegram of 15th May. Medical inspection at Bezwada. Bengal Government fears infection may be carried into Orissa by pilgrims, especially pilgrims for Car festival, which takes place in middle July, coming *via* Southern Mahratta and East Coast Railways. Pilgrims by this route would escape examination at Kondapalli. Government of India will therefore be glad if Madras Government will cause inspection staff at Bezwada to be strengthened and Commissioned Medical Officer to be appointed to that station.

No. 114.

No. 1690, dated Simla, the 14th June 1897.

From—The Secretary to the Government of India, Home Department,
To—The Secretary to the Government of Bengal, Municipal (Medical) Department.

I am directed to acknowledge the receipt of your letter No. 275-T. M., dated the 31st May 1897, regarding precautions to guard against the introduction of plague into Orissa, with special reference to the danger arising from the influx of pilgrims from the Bombay Presidency into Puri, to visit the temple of Jagannath and to be present at the Car festival.

2. I am to say that it appears to the Government of India that now that the virulence of the epidemic has diminished the danger of so much infection reaching Calcutta through Orissa has been greatly reduced. The Government of India also understand that the number of persons from the Bombay Presidency who perform the pilgrimage to Puri is not large. Under these circumstances it appears to the Government of India that there is not sufficient reason to adopt the extreme measure of prohibiting the sale within the Bombay Presidency and Sind of railway tickets to Khurda Road and all stations on the East Coast Railway between that place and Bezwada. The precaution would also not be completely effectual since intending pilgrims

could take tickets to some place outside the Bombay Presidency and continue their journey with a fresh ticket. The Government of India notice that the Commissioner of Orissa has been requested to draw up a complete scheme for forming an observation camp in which the pilgrims arriving for the Car festival from the direction of Bombay will be segregated and kept under observation for ten days, and it appears to them that this precaution combined with the usual precaution of inspection at certain places on the journey will be sufficient to guard against the danger.

3. With regard to the subject of the inspection of the pilgrims on the journey. The route *via* the Great Indian Peninsula Railway, the Nizam's State Railway and the East Coast Railway is guarded by the first class inspection station at Hotgi and by the inspection station at Kondapalli, the arrangements at which were communicated to the Government of Bengal in my telegram No. 1542, dated the 20th May 1897. The alternative and circuitous route *via* the Southern Mahratta Railway is guarded by the first class inspection station of Guntakal in the Madras Presidency, and as an additional precaution the Government of Madras have been requested to increase the strength of the inspection staff at Bezwada and to appoint a Commissioned Medical Officer to the place.

4. In conclusion I am to say that the Government of India will be glad to receive in due course an account of the working of the observation camp to be established for the segregation of pilgrims coming from the direction of Bombay. They would also be glad to learn, in order to communicate the information to the Government of Madras, over what dates the period of the Car festival will extend.

Telegram dated Darjeeling, the 15th June 1897.

No. 115.

From—The Secretary to the Government of Bengal, Financial Department,

To—The Secretary to the Government of India, Home Department.

Pilgrims beginning to arrive Puri. Lieutenant-Governor would be glad to have orders on my letter 31st May regarding prohibition sale of railway tickets.

Telegram No. 1723, dated Simla, the 18th June 1897.

No. 116.

From—The Secretary to the Government of India, Home Department,

To—The Secretary to the Government of Bengal, Financial Department.

Your telegram dated 15th. Pilgrims visiting Orissa. Reply to your letter dated 31st May sent by letter on 14th instant.

No. 117.

Telegram dated Ootacamund, the 16th June 1897.

From—The Secretary to the Government of Madras, Local and Municipal Department,

To—The Secretary to the Government of India, Home Department.

Your No. 1686-Sanitary. South Mahratta and East Coast Railways well protected by Guntakal and Bombay Presidency inspections. Inspection at Bezwada considered unnecessary. Please state whether you concur.

No. 118.

Telegram No. 1744, dated Simla, the 24th June 1897.

From—The Secretary to the Government of India, Home Department,

To—The Secretary to the Government of Madras, Local and Municipal Department.

Your telegram dated 16th. Inspection at Bezwada. Government of India consider it desirable that there should be inspection nearer Puri than Guntakal until after Car festival. They therefore think that Commissioned Medical Officer should be posted to Bezwada for the present.

No. 119.

Telegram dated Ootacamund, the 25th June 1897.

From—The Secretary to the Government of Madras, Local and Municipal Department,

To—The Secretary to the Government of India, Home Department.

Your telegram No. 1744-Sanitary. Orders issued to transfer inspection station from Kandapalli to Bezwada under supervision of Commissioned Medical Officer.

No. 120.

Telegram No. 1770, dated Simla, the 1st July 1897.

From—The Secretary to the Government of India, Home Department,

To—The Secretary to the Government of Bengal, Financial Department.

Continuation paragraph 3 of my letter 1690, dated 3rd. Government of Madras telegraph that orders have issued to transfer inspection station from Kandapalli to Bezwada under supervision of Commissioned Medical Officer. This will guard both Nizam's State Railway and Southern Mahratta Railway routes.

No. 121.

Telegram dated Darjeeling, the 2nd July 1897.

From—The Secretary to the Government of Bengal, Financial Department,

To—The Secretary to the Government of India, Home Department.

Your letter 1690 of 14th June. Paragraph 4 last sentence. Car festival begins 2nd July, usually lasts about 25 days, say, till end of

His Highness's territories the provisions of the Epidemic Diseases Act, or provisions analogous thereto? Is the *Mela* being controlled from point of view of epidemic? It seems desirable that Maharaja should take action indicated within his dominions before Government of India are asked to assist by taking action which is perhaps not authorised by ordinary law.

Telegram No. 3744, dated Indore, the 14th April 1897.

No. 127.

From—The Agent to the Governor General, Central India,

To—The Secretary to the Government of India, Foreign Department.

Your telegram No. 1392, April fourteenth. The original prohibition by Maharaja Sindhia of the *Singhast Mela* was determined when it became clear that scarcity threatened; but danger of epidemic breaking out was always contemplated and was included in reasons for prohibition; the danger is not limited to Gwalior territory, for if epidemic disease appears amongst pilgrims at Ujjain, it will be impossible to prevent its dissemination to those parts of India from which the pilgrims come and to which they will return; this is chief cause of my anxiety and of my request that Sadhus may not be allowed to pass through British districts on the way to Ujjain. Sindhia has adopted in Malwa measures analogous to provisions of Epidemic Diseases Act. The *Mela* at Ujjain is being controlled from point of view of epidemic; the last *Singhast Mela* in 1885 resulted in outbreak of cholera when deaths among pilgrims were estimated at twenty thousand, and fourteen thousand deaths occurred among residents of town of Ujjain.

No. 3636-G., dated Indore Residency, the 12th April 1897.

No. 128.

From—LIEUTENANT-COLONEL D. W. K. BARR, C.S.I., Agent to the Governor General in Central India,

To—The Secretary to the Government of India, Foreign Department.

I have the honour to address you in continuation of my telegram No. 3580 of the 10th April 1897, regarding the *Singhast Mela* at Ujjain.

2. In the early part of 1896, very elaborate arrangements were made for the management of the large crowd that always attends this festival.

In October 1896, however, in consequence of the impending famine and the increased danger to health which such a gathering would entail in these circumstances, the Maharaja Sindia, at my suggestion, definitely decided to prohibit this *Mela*.

Notices announcing this decision were accordingly issued by the Gwalior Darbar in English, Hindi, Urdu and Marathi, and distributed

by me to all the Railway Administrations concerned, *viz.*, the Indian Midland Railway, the Great Indian Peninsula Railway, the Bombay, Baroda and Central India Railway, and the East Indian Railway, to all the neighbouring States and Thakurates, and to the Governments of the North-Western Provinces, the Punjab and Bombay. The notice was as follows :—

“ Notice is hereby given that owing to the want of sufficient rainfall and consequent failure of crops and great scarcity, the Singhasht Fair, which was to be held in 1897 at Ujjain, has been stopped.

“ Should any pilgrims, in spite of this prohibition, arrive at Ujjain, they will not be allowed to stop there under any circumstances.”

3. On the 2nd March 1897 a case of bubonic plague was discovered at the Ujjain Railway station, and thereupon I issued the accompanying notice to the Railway Administrations above mentioned, to all the Political Agents in Central India for the issue of suitable instructions to the States in their political charge, to the States that are directly under my own political charge, *viz.*, Indore, the Dewas States, and Bagli, to all Cantonment Magistrates and Officers Commanding Local Corps in Central India, to the Agent to the Governor-General in Rajputana for such action as he might consider necessary, and to all Railway Station Masters between Khandwa and Ujjain, between Ujjain and Rutlam, between Ujjain and Bhopal, between Rutlam and Neemuch. Of the Indore Darbar I requested to be informed at a very early date what measures they had decided to take in the matter, and I suggested that they should take steps to turn back at the limits of Indore territory mendicants and pilgrims travelling along the Khandwa-Indore and Agra-Bombay roads. The Indore Darbar has, however, never replied to, nor taken any notice of, my requests and suggestions, until a few days ago when the evil had assumed dimensions which were and are beyond control, as will appear from what follows.

The Agents of the Bombay, Baroda and Central India Railway, of the East Indian Railway, and the Great Indian Peninsula Railway assured me that the necessary instructions had been issued along those lines.

4. The Sar Subah of Ujjain had, on the 6th March last, arranged to have all arrivals at Ujjain turned out as they came in. He also informed me that the Subahs of the different districts had been instructed to turn back all large assemblages of Bairagis and Gosains on their way to Ujjain. At the same time he told me that several thousand Sadhus and the like had assembled at Indore with the express object of making a simultaneous rush on Ujjain when the time came.

Both the Dewas States cordially assisted me and took effective measures to prevent the influx of pilgrims to Ujjain. Beyond this I have had no response to the endeavours I have made to prevent a gathering of Sadhus and others at Ujjain.

5. The information about the collection of Sadhus at Indore was quite correct, and, on the 23rd March last, having made several verbal communications on the subject to the Indore Minister and the Indore

Enclosure B. Vakil, I sent a copy of the accompanying kaifat from the Gwalior Vakil to the Indore Darbar and formally requested to be informed what measures the Indore Darbar had taken or intended to take to prevent a sudden influx of mendicants, pilgrims and others into Ujjain. Receiving no answer, but hearing that the Maharaja Holkar was entertaining and feasting

Enclosure C. these Sadhus, I addressed, on the 25th March last, the accompanying letter to the Indore Vakil.

On the 26th March, I sent the accompanying telegram to the Chief Commissioner, Central Provinces, to

Enclosure D. which I have not yet received any reply. On the 29th March, I heard from the Indore Vakil that orders had been received from the Maharaja Holkar "to disperse by force, if necessary, the whole assemblage of Sadhus and mendicants here, with the exception of one superior order of Sadhus who, however, do not number many." The Vakil added that "the Darbar now hopes to clear the town of these immigrants without delay." Finding that these orders were not only not carried out but that the number of Sadhus was steadily increasing, on the 5th April I addressed the

Enclosure E. Indore Vakil in a demi-official letter No. 3363. Meanwhile I continued to make urgent verbal representations to the Minister and the Vakil of Indore, and on the 7th April, finding that nothing had been done, I again wrote an urgent reminder to the Vakil.

6. As the matter was becoming very urgent, I telegraphed to the Sar Subah of Ujjain to come to Indore and sent for the leading Mohants among the Sadhus, and on the night of the 9th instant at a personal interview, arranged with them the conditions specified in the accompanying telegram to the Resident at Gwalior. To these arrangements the Maharaja Sindia has given

Enclosure F. his consent and has issued the necessary instructions to the Sar Subah of Ujjain. The Mohants have given assurances in writing that they will abide by these conditions, and trust that no harm may result from their presence at Ujjain.

7. I found it impossible to insist on the Sadhus not going to Ujjain, because they had become very numerous, were intensely fanatical and determined to go to Ujjain at all hazards, and because 300 armed Sadhus had lately arrived from Burhanpore in the Central Provinces and others equally armed had left Rutlam for Ujjain. In these circumstances I thought the compromise I have made with the concurrence of the Maharaja Sindia was the most advisable in the circumstances, and I trust the Government of India will agree with me.

8. I am constrained to call attention to the apparent disregard of all the notices and warnings I have issued by those to whom they were addressed with the exception of the Officers and States in Central India. The Government of India are aware of the highly religious and even superstitious character of the Maharaja Holkar, and judged by his own standards, it would hardly be reasonable to blame him for hesitating to encounter the terrors of ex-communication or the odium of the religious bodies who still have so much power in India.

Enclosure A.

Notice issued by the Agent to the Governor General in Central India on the 3rd March 1897.

A lakir was found yesterday (2nd March 1897) at the Ujjain Railway station suffering from the plague (bubonic fever), he had come from Onkarnath on the Narbudda.

It is probable that many mendicants and others will be coming to Ujjain from Bombay and other plague-stricken places; you are therefore reminded that the *Singhasht Mela* at Ujjain has been absolutely prohibited this year by the Maharaja Sindia, who has given strict orders that should any pilgrim, in spite of this prohibition, arrive at Ujjain, they will not be allowed to stop there under any circumstances.

I am directed to ask you to do all in your power to prevent such pilgrims coming to Ujjain and to co-operate to the best of your ability with the local authorities in their endeavours to stop any such influx into Ujjain.

Enclosure B.

Abstract translation of a *kaifiat*, No. 83, dated the 13th March 1897, from the Gwalior Darbar Wakil to the address of the First Assistant to the Agent to the Governor-General in Central India.

I have received a *khut* dated the 9th March 1897, from the Subah of Ujjain which is to the following effect.

The *Singhasht* fair has been stopped this year. Strict orders have been issued to the police not to allow the Sadhus to enter Ujjain. The approaches to Ujjain and the halting places and the assemblage grounds are very strictly guarded. The Lambardars, Patwaris, and Chaukidars of all villages have been warned not to allow Sadhus to stop in their villages or proceed towards Ujjain, but to persuade them to return. Orders have also been issued to turn out any Sadhus who might have come secretly by other routes than recognised thoroughfares. A Sub-Inspector has been posted at the Ujjain station to see that the Sadhus and Fakirs who come by rail are made to go back. The result of all these precautions is seen in the fact that no Sadhu who has come from Maffassil to join in the fair can be seen at Ujjain. But it has been heard that the Sadhus and Fakirs of Indore and Dewas and of Indore and Dewas villages which adjoin Ujjain are awaiting to come to Ujjain to join in the fair. Some of these Sadhus have come by rail in twos and fours. It would be much better if steps were taken to stop this (in-coming) through the Illakadars and the railway officials.

I beg to submit this *kaifiat* for orders and necessary action.

Enclosure C.

No. 3019, dated Indore Residency, the 25th March 1897.

Demi-official from—CAPTAIN L. S. NEWMARCH, First Assistant to the
Agent to the Governor General, Central India,
To—The Residency Vakil, Indore.

The Agent to the Governor General has learnt that two deaths occurred on the 23rd March among the Sadhus collected at Indore. I am to ask whether any report has been received by the Darbar of these deaths, and if so, what disease is reported to be the cause of death.

It appears that, in spite of orders and warnings to the contrary, over 4,000 of these mendicants are still encamped at or near Indore, and it is said that these persons intend to visit Ujjain. The Darbar should clearly understand that the responsibility of allowing these mendicants to remain at Indore rests entirely upon them, and that they will be held answerable to the Government of India for any outbreak of illness that may occur. The *Singhasht Mela* at Ujjain has been positively prohibited by His Highness the Maharaja Sindia, and the entry of any pilgrims will most certainly be prevented (by force if necessary) into the city. In these circumstances the Agent to the Governor-General calls upon the Darbar to take immediate and effective measures for dispersing this assemblage of mendicants, which is certainly a source of great danger—during the present season and

having regard to the prevalence of plague in various parts of India from which these mendicants have come—not only to the town of Indore but to India generally. The matter is most urgent and demands immediate and prompt action on the part of the Darbar authorities.

Enclosure D.

Telegram No. 3051, dated Indore Residency, the 26th April 1897.

From—The Agent to the Governor General in Central India,

To—The Chief Commissioner of the Central Provinces.

Maharaja Sindia has, by proclamation issued last September, and recently repeated, prohibited the *Singhasht Mela* at Ujjain which was to have taken place at end of April 1897. Notices have been sent to all States and to Railway authorities. In spite of prohibition large numbers of Sadhus continue to arrive at Indore from Onkar Mandhata and other places in Central Provinces. I shall be much obliged if you will kindly issue orders preventing Sadhus and other classes of mendicants from leaving Central Provinces for Ujjain. There are at present four thousand mendicants congregated at Indore, most of whom have come from Onkar and four hundred arrived here yesterday.

Enclosure E.

No. 3363, dated Indore Residency, the 5th April 1897.

Demi-official from—CAPTAIN L. S. NEWMARCH, First Assistant to the Agent to the Governor General, Central India,

To—The Darbar Wakil, Indore.

I am desired to refer you to the correspondence ending with Colonel Barr's demi-official letter No. 3135, dated the 29th March 1896, and to ask you to be good enough to report whether the orders passed by His Highness the Maharaja for the immediate dispersal of the Sadhus congregated in the Indore City have been carried out, and also whether these Sadhus have left the city.

I am again to request that you will let these men clearly understand that they will not be permitted on any account to enter the city of Ujjain or indeed to pass into His Highness the Maharaja Sindbia's territory.

Enclosure F.

Telegram No. 3550, dated Indore Residency, the 9th April 1897.

From—The Agent to the Governor-General in Central India,

To—The Resident at Gwalior.

In spite of all precautions and prohibitions regarding *Singhasht Mela* at Ujjain, at least fifteen thousand Sadhus will certainly go to

Ujjain to bathe in Sipra. It is quite impossible to prevent this. They come from all directions, but seven thousand are now at Indore. They agree to go under control of Gwalior Darbar officials under following arrangements, namely, to arrive Ujjain on evening of Sunday next, April 11th, to encamp outside city, and stay there until 18th April, on which day they bind themselves to leave and to disperse to their homes. They wish to bathe at the Ghats on 17th April, and after bathing to go to Angapat and Mahankal, but on distinct promise of leaving city that evening.

I have discussed these arrangements with Onraet and the Subah of Ujjain, and I am of opinion that under the peculiar circumstances of the case no other or better arrangements can be made.

Please explain this fully to Maharaja and ask him to give his consent and to issue necessary orders by urgent wire to Sar Subah at Ujjain.

No. 1309, dated Simla, the 17th April 1897.

NOTIFICATION—By the Government of India, Home Department.

No. 129.

Whereas His Highness Maharaja Sir Madho Rao Sindhia Bahadur, G.C.S.I., Maharaja of Gwalior, has, owing to the danger of an outbreak of dangerous epidemic disease in his territories, prohibited the assemblage of persons at Ujjain for the Singhast Mela ;

And whereas the Governor General in Council is satisfied that such danger as aforesaid exists ;

In exercise of the powers conferred by section 2, sub-section (1), of the Epidemic Diseases Act (III of 1897), the Governor General in Council is pleased to direct that no tickets to travel by railway to Ujjain, or to the station on the railway next on either side of Ujjain, that is to say, to Fatehabad Junction or to Tajpur or to Aslaoda, shall be sold from the date of this notification, until the 18th day of May 1897, by any railway administration in British India to any pilgrim or other person intending, or believed to be intending, to visit the Singhast Mela.

Papers regarding Precautions on the Frontier.

PROTECTION OF BALUCHISTAN AND AFGHANISTAN.

Telegram No. 19-M., dated Mahableshwar, the 7th April 1897.

No. 130.

From—The Secretary to the Government of Bombay, Political Department,

To—The Secretary to the Government of India, Foreign Department.

Yours No. 1222-I. Deputy Commissioner, Jacobabad, wires:—
Begins. Road traffic with Baluchistan not heavy, brief danger by rail

from Sukkur, also by road *via* Shikarpur and Jacobabad. All roads being watched carefully on Shikarpur border. This district so far entirely free from plague—*Ends*. Collector, Karachi, wires :—*Begins*. Pages 168 and 169, Sind trade and Navigation Blue Book for 1895-96 give quantity and details of articles exported from Karachi to Mekran and Sonmiani, Karachi and Shikarpur districts, separate from Baluchistan by range of barren hills with only one road to Sonmiani. For some time persons attempting to cross from Karachi have been prevented by the tribal levies of Las Bela State, only possible not probable routes for infection in the frontier district—*Ends*. I think all Bombay trade for Baluchistan must go *via* Karachi, but have addressed Collector, Bombay, and will wire again on receipt of his reply if I find it necessary.

No. 131.

No. 714, dated Lahore, the 17th April 1897.

From—H. J. MAYNARD, Esq., Junior Secretary to the Government of the Punjab,

To—The Secretary to the Government of India, Foreign Department.

I am directed to acknowledge the receipt of your letter No. 1197-I.-A. of 26th March 1897, and to communicate the following remarks on the subject of the proposed measures against the exportation of plague from the Punjab into Afghanistan.

2. In the first place Mr. Young desires to draw attention to the fact that, notwithstanding the occasional importation of the disease by travellers from Bombay and Sind, there have up to the present time been no local cases of plague in the Punjab, with the exception of two which took place at Delhi some months ago in the house occupied by a recent arrival from Bombay who was himself infected.

3. The province is protected by a system of inspection at railway stations, ferries and road posts, of the general character of which the Government of India are already aware. In addition to the inspection of travellers alighting from the trains at a large number of stations which include all district head-quarters and all cantonments on or near the line of railway and all terminuses for hill stations, there are special inspections, at which all passengers are examined at certain points which have been so selected as to enable the work to be done by daylight. Passengers from Sind are all inspected at Khanpur or at some neighbouring station, the actual place of inspection being varied from time to time to provide against the practice of evading inspection by marching across country. All intermediate and third class passengers are now detained for 24 hours at Khanpur, in order to undergo the disinfection of their clothes and personal

effects, and an Assistant Commissioner has been placed on special duty there to superintend the arrangements. A second line of defence against the danger from Sind is provided by inspection of all passengers either at Sher Shah or at Raiwind, all passengers of the Sind-Sagar line being inspected at the former place. Passengers from the Bombay direction by the Bombay, Baroda and Central India line undergo inspection either at Bhatinda or at Ferozepore according to the train by which they arrive, while those travelling by the East Indian Railway, after undergoing inspection at Ghaziabad in the North-Western Provinces, are again inspected either at the junction of Wazirabad or at Jhelum, according to the train by which they arrive.

4. Passengers up to the Indus from Sind are stopped at the ferry of Mithankot and there examined. Entry into the Dera Ghazi Khan district from Sind or from the Native State of Bhawalpur, which lies on the opposite side of the Indus, is prohibited, otherwise than by way of Mithankot or Rojhan, a road inspection post situated at the extreme south of the district.

5. A record is kept by the police of all arrivals from the infected provinces, and particular attention is paid to deaths occurring among such persons with a view to immediate detection of cases of plague. It has been made legally incumbent upon certain persons including village officials, householders and seraikeepers to report at once all arrivals from infected provinces and all suspicious cases of disease. The District Magistrate and any 1st class Magistrate or Commissioned Medical Officer, to whom he may delegate the power, has legal authority to remove a plague patient to hospital, and to destroy or disinfect any building which he has occupied. Many minor matters have also been provided for by Regulations issued under the Epidemic Diseases Act, 1897, and it is believed that such machinery as can be provided exists for the discovery and stamping out of the disease as soon as it shows itself.

6. So long as the Punjab is free from the disease, the protection of Afghanistan will be as efficiently secured by the measures adopted on the East and South frontiers of the province as by any special arrangements on the North and West frontiers. Every effort is being made to detect cases which may be imported across the former frontiers, and if this province does not receive the infection it will not pass it on. If unhappily the Punjab or any part of it becomes an infected area, then the Lieutenant-Governor thinks that apart from any measures which may be taken for dealing with such an area, it may be necessary in pursuance of the orders of the Government of India expressed in their letter under reply to establish an inspection cordon for the

special protection of Afghanistan. The detention in the province of all persons intending to go to Afghanistan would, in His Honour's opinion, be impossible, and for reasons similar to those given in your telegram No. 935, dated the 13th of March 1897, about quarantine on the southern border, impolitic; but it would be only right that our line of defence should be shifted behind the invaded area. Mr. Young suggests that we should await the development of events before deciding precisely what line to take up in such a case. As an ultimate resort the establishment of an inspection cordon at the ferries on the Indus (which could be made fairly effective owing to the rising of the river which must already have begun), or even the establishment of inspection posts at each of the principal passes into Afghanistan may be adopted, though it is manifest that either measure will if we have the plague upon us, most seriously tax the resources of the province and the latter alternative would afford but little prospect of success.

7. Meanwhile the inspection of all persons alighting from the railway at Peshawar, Attock, Khusalgarh, Kundian, Darya Khan, Ghazi Ghât, combined with the measures taken at Khanpur, Sher Shah and Raiwind on the North-Western system and at stations on the Eastern and Southern frontiers, affords as good a prospect as can for the present be devised for preventing the exportation of plague cases from the Punjab to Afghanistan.

8. As regards the pilgrims from Nasik, to whom reference is made in your letter under reply, it is understood that they have all dispersed. An enquiry has been addressed to the Deputy Commissioner, Peshawar, on the subject, and the facts will be communicated to the Government of India when his reply is received.

No. 132. Extract from a letter from His Highness the Amir of Afghanistan, to His Excellency the Viceroy, dated the 8th April 1897.

As regards necessary precautions for the prevention of the plague, Your Excellency writes that we should endeavour to guard against the plague spreading from one place to another, and that if the plague should appear, which God forbid, in Afghanistan, I should inform Your Excellency with the least possible delay, so that with the aid of doctors measures might be taken to stamp out the disease. My kind friend, the proper measures are those which have been undertaken both by the illustrious British Government and myself, under which travellers are detained for a certain fixed number of days at each post and kept under observation, so that any person affected with this disease may not go from one country to another.

But as everything lies in the hands of the Supreme Creator, I am offering prayers to Him that His Exalted Majesty may remove the

life-destroying calamity from all countries of the world, so that all the creatures of God may remain safe from it.

By the grace of God up to the present no sign of the disease has appeared in this country. But if it is predestined to appear hereafter, the best thing would be to seek the grace and kindness of the Supreme Doctor. It has not been heard as yet that, under the treatment of the existing doctors, even five per cent. of the persons afflicted by such a disease have recovered. On the contrary I have heard that, with the exception of their burning the clothes and houses of the afflicted persons, they have not been able to administer any other remedy.

Consequently, under these circumstances, it is better to invoke the aid of God by praying for His grace and kindness.

REGULATIONS ENFORCED IN PERSIA.

Translation of Rules regarding Sanitary posts to be established on the frontiers of Afghanistan and Baluchistan by Command of His Majesty Muzaffar-ud-Din Shah. No. 133.

(His Majesty the Shah) actuated by his Royal favour and kindness towards the subjects of the high Government of Persia hereby issues stringent orders that in addition to the steps already taken at the Persian Gulf ports for the prevention of the spread of plague from India to Persia the following measures shall also be adopted:—All along the frontier of Afghanistan and Baluchistan sanitary posts shall be established as detailed below:—

(1) *On the frontiers of Afghanistan.*—His Majesty the Shah-in-Shah issues stringent orders that all roads, passages, mountain passes and paths shall be closed by means of troops—infantry and cavalry—with the exception of—

I.—The main road coming northward from Herat to Meshed.

II.—And the other main road between Kandahar and Birjand coming southward to Kirman and Yezd, which shall remain open.

(2) *On the frontier of Baluchistan.*—Although guarding this part of the country is comparatively difficult, yet in consideration of the comparatively small traffic it is not very important. A strong sanitary post shall be established on the road coming from Baluchistan to Bampur and Bam, and a number of Karawals (guards) and Karasuran (patrols) shall then take great care that not a single soul shall cross except by this road, all other small roads being closed.

On each of these three roads which shall remain open, sanitary posts, consisting of cavalry, infantry and doctors, with all requisites, such as medicines and other things, etc., shall be established in Persian territory, and travellers and merchandise passing through those places shall be carefully inspected and examined, and, in case of necessity, placed under quarantine.

Sanitary Posts.

(1) *Establishment of sanitary posts.*—Sanitary posts shall be established at places near drinking water either in gardens or tents at least a thousand metres from dwelling houses or villages.

Each sanitary post shall consist of the following officials:—

- I.—One head of department with officers and soldiers required for carrying out orders and looking after affairs.
- II.—Two doctors—one for inspection and examination of travellers and the other for the treatment of patients infected with plague in case of necessity.
- III.—Persons in attendance for carrying out the orders of doctors.

The head of the sanitary posts and the doctors attached to his department shall be personally responsible for performing their duties properly and with great care.

Especially the head of the sanitary post shall take care that the doctors perform their duties properly, carefully inspect and examine travellers and do not act against law in case they should be placed under quarantine or in case of merchandise being allowed to pass the sanitary post; similarly that different parties of travellers in the order of their arrivals be separated from each other, and those suffering from or suspected of being infected with the disease be formed into separate groups and not located with each other.

The head of the sanitary post and the chief doctor shall submit separately a weekly report of their work containing an account of daily occurrences, numbers of travellers and patients and persons placed under quarantine to the Governor, who shall forward it to the Minister concerned.

The articles necessary to be procured and kept ready at each sanitary post are as follows:—

- I.—A special tent for each head (of sanitary post) and other tents for troops and others.
- II.—A tent for storing medicines and articles necessary for disinfection.
- III.—A lazaretto divided into three different sets of tents (the number of these tents to vary according to the

importance of the road, the number of travellers and the amount of traffic).

IV.—A tent required for disinfection.

V.—Articles required for comfort (furniture), necessities of life, and supplies.

VI.—A sufficient quantity of medicines and disinfectants.

VII.—Some articles such as pails, earthenware vessels and pans required for disinfection.

(2) The following are the duties of the officials of sanitary posts:—

The senior of the two doctors of a sanitary post shall inspect and examine travellers. The other doctor shall treat and look after persons suffering from plague, and besides this he shall undertake the work of disinfection. The latter with his attendants shall take up quarters quite apart from others, *viz.*, he shall always live in the group of tents set apart for persons infected with plague, entirely separate and away from other groups of tents. These tents shall be at a distance of at least three hundred metres from the sanitary post.

None of the persons belonging to this group of tents shall have any intercourse with the sanitary post, and their baggage and other necessities shall also be quite separate.

No one shall cross the frontier at night.

The head of the sanitary post shall post necessary sentries and guards to detain travellers and arrivals till day-break, and in the course of the same day he shall determine how they are to be disposed of. When the travellers arrive on the frontier and their starting places and destinations are ascertained, the senior doctor shall examine them one by one, and without delay separate the persons with their baggage who are not to be allowed to cross or whom it is necessary to send to the sanitary post, from others. The other travellers who are not infected shall be placed under 15 days' quarantine, and, as far as possible, they shall be divided into several parties of a hundred each, the first arrivals taking precedence over those who arrive after them. During these 15 days, if anyone be seized with plague, he or she shall be sent, with his or her baggage, to the lazaretto; and the tent occupied by him or her shall be vacated and disinfected and then removed to another place. The companions of the patient shall be kept under observation for 15 days from the date of the appearance of the disease, and the site of the tent shall be cleaned very carefully. The second doctor and his attendants shall attend the patient, and, in case of death, the body shall be buried at the depth of a zar* at least, and, if possible, lime shall be sprinkled over it. In no case shall dead bodies be removed to distant places, and the deceased's property,

* 42 inches.

such as clothes and beddings, shall be burnt without delay. In case of the recovery of the patient he or she shall be placed under quarantine for a month, and his or her clothes and bedding shall be burnt. In case of a person being in indigent circumstances fresh clothes shall be supplied to him or her, and he or she shall be removed from the tent of patients to another tent. The site of the tents of patients shall be changed and cleaned at short intervals. Latrines shall be near the tents, but, as far as possible, on the side opposite to the direction from which the local winds blow.

These latrines shall be narrow and deep ditches far away from drinking water, and shall be daily filled up after lime water has been poured into them. Filth and other things which cannot be burnt by fire, whatever they may be, shall also be thrown into latrine ditches.

Arrangements for Supplies and Food.

The Governors of districts shall issue necessary orders that a bazar shall be held near every quarantine post where rice, wheat, sheep, vegetables, and all other eatables and fodder required for man and beast shall be procured, stored, and always kept ready.

Another bazar shall also be held for the Lazaretto quite separate and apart from the other. A list of prices of articles at moderate rates shall be proclaimed and hung up in order to prevent excessive charges.

Poor patients shall be supplied with food and medicines free of charge.

Great care shall be taken about drinking water, which shall not be allowed to be contaminated; especially corpses and clothes shall not be allowed to be washed in or animals permitted to enter and defile the spring or running drinking water. Persons infringing this order shall be liable to severe punishment. The best thing would be to fix separate spots for washing clothes and watering animals, and to take great care in cleaning and changing them at short intervals.

Rules regarding Disinfection.

I.—Clothes and baggage of plague-stricken persons shall be burnt without delay.

II.—Clothes and baggage of healthy travellers shall be washed and disinfected before they are discharged from quarantine.

(1) Means of disinfection—

I. Burning.

II. Boiling in water for an hour.

III. Lotion of carbolic acid, five in a hundred, *i.e.*, one *miskal**

* 2½ miskals = 1 tola. in 20 miskals of water.

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- III. Lotion of carbolic acid, five in a hundred, *i.e.*, one *miskal**

* 2] miskal = 1 tola. in 20 *miskals* of water.

IV. Corrosive sublimate, one in thousand.

V. Lotion of sulphate of copper, two in a hundred.

VI. Lime water or liquor calcis.

† 6½ lbs.

VII. Sulphur about a *man†* to be burnt in an ordinary room.

(2) *Manner of carrying out disinfection—*

Burning articles by fire in an open place. Boiling (articles) in large caldrons.

All chemical lotions can be prepared in any vessel, except the lotion of corrosive sublimate which spoils metals and which should, therefore, be prepared in glazed earthenware vessels or in vessels of the like kind a *miskal* of common salt being added to every *man* of the lotion.

Lime water should be prepared by diluting a quantity of lime in the double quantity of water.

For fumigation with sulphur.—Clothes and articles of that kind shall be hung up on ropes in a room, and pounded sulphur sprinkled on firepans full of fire (placed under them), all openings in the room being closed and crevices in doors, etc., plastered over with mud.

The articles shall be removed after twenty-four hours—

(3) *Disinfection of certain different articles—*

I. Articles not made of cotton (such as drawers, handkerchiefs, socks, shawls, towels, and such like) to be disinfected with corrosive sublimate, or carbolic acid, or sulphate of copper, or to be boiled in water.

II. Articles made of wool [such as banians, coats, trousers, overcoats, vests, cloaks (*aba*), and the like] to be disinfected with the above chemicals or to be fumigated with sulphur.

III. Articles made of wax-cloth, leather, skin, or wood, or articles joined, glued, pasted or attached (to other articles) to be disinfected with the above chemicals, or to be fumigated with sulphur, but not to be boiled.

IV. Clothes made of or lined with skins or furs, all kinds of skins and hides of animals shall not be allowed to cross the frontier (but in case it is necessary to pass them) they shall be kept for two days and nights in lotion of corrosive sublimate.

V. Baggage, clothes and beddings of plague-stricken persons and articles of no value (such as chopped straw, grass, old clothes waste paper, rags, or remaining of medicines and food and the like) shall be burnt by fire which may be inflamed by pouring kerosine oil on it.

VI. On the arrival of the post papers and important articles contained in it shall be fumigated with sulphur.

VII. Tents occupied by plague-stricken persons shall be burnt after the abolition of quarantine.

VIII. All other tents shall be washed by lotion of corrosive sublimate.

IX. For the disinfection of ground and sites of tents, the surface of the ground should be covered with dry dung soaked in kerosine oil which shall be set on fire.

X. Discharges of patients and water used for washing shall be thrown into latrine ditches without delay, and every day, before they are filled up, lotion of green vitriol or sulphate of copper or lime shall be poured into them.

XI. The vessels which are liable to be stained shall be of metal and every time after use they shall be washed with lotion of carbolic acid.

XII. Doctors and their attendants and the comrades of patients and persons who have just recovered from illness shall first wash all their bodies several times with hot water and soap, and afterwards with lotion of corrosive sublimate. Their beards and hair shall be cut as short as possible, or at least washed thoroughly well with lotion of corrosive sublimate.

First Warning.

Travellers not abiding by the above regulations shall be turned back by force and not allowed to cross the frontier.

Second Warning.

Doctors and their attendants shall take great care in disinfecting themselves.

If they take proper care and keep themselves clean, they are not liable to the disease and can enjoy immunity from it. For instance in India none of the doctors or their attendants, with the exception of only one, has been seized with the disease.

Care should be taken in diet and heavy meals should be avoided, medicines like corrosive sublimate or carbolic acid should not be used in such large proportions as might make them poisonous.

PRECAUTIONARY MEASURES IN MESOPOTAMIA.

No 134.

Telegram, dated the 30th January 1897.

From—The Political Resident in Turkish Arabia, Baghdad,

To—The Foreign Secretary, Calcutta.

Sanitary authorities notified that entry into Mesopotamia of Shiahs and corpses from India prohibited. Please repeat this telegram to Government of Bombay.

Circular No. 8, dated the 10th February 1897.

From—The Acting Sanitary Inspector, Baghdad,

To—Her Britannic Majesty's Consul-General, Baghdad.

No. 135.

J'ai l'honneur de porter a votre connaissance que par decision du Conseil Superieur de Santé, transmise hier et parvenue télégraphiquement ce soir, l'entrée des voyageurs et cadavres provenant des Indes, du Baluchistan, de la rive Persane du Golfe de Bassorah et du l'itorale depuis Bassorah jusqu' à Khanakin est interdite. De Khanakin a Bayazid, l'entrée des voyageurs seulement est permise, quant aux cadavres provenant de ces lieux défense absolue est imposée.

Circular No. 14, dated the 11th February 1897.

From—The Acting Sanitary Inspector, Baghdad,

To—Her Britannic Majesty's Consul-General, Baghdad.

No. 136.

Par décision du Conseil du Santé, la quarantaine de dix jours imposée aux provenances des Indes est portée à quinze jours. La mesure prohibitive édictée contre les navires qui auraient présentées des cas de peste, ou suspects de cette maladie à bord pendant la traversée est maintenue, cependant dans le cas ou la peste venait à se manifester soit parmi les passagers soit parmi l'équipage, après l' arrivée du navire au lazaret de Bassorah, navires et passagers seront soumis à une quarantaine de dix jours à partir du dernier cas constaté, avec désinfection très rigoureuse des hardes, effets et bagages des passagers et de l'équipage. Le navire sera désinfecté et l'eau potable renouvelée. Les eaux des cales seront vidées après avoir été préalablement désinfectées, toutfois les navires de cette catégorie auront le faculté de retourner en contumace avec les passagers qu' ils y auraient à amener dans leur pays d'origine. La même quarantaine et les mêmes mesures de rigueur seront également appliquées aux navires provenant des ports du littoral du Belouchistan jusqu'à la frontière de la Perse. La mesure de prohibition portée contre les visiteurs chiites et les cadavres provenant des Indes est maintenue, et elle est en outre étendue aux provenances du littoral du Belouchistan. L'entrée des cadavres en Turquie est également prohibée de tout le littoral persan du Golfe persique ainsi que de toute la frontière persan du terre allant de l'emboushure du Shat-el-Arab jusqu'à Bézazid inclusivement.

APPENDIX IX.

MEASURES TO PREVENT THE SPREAD OF INFECTION BY SEA.

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APPENDIX IX.

MEASURES TO PREVENT THE SPREAD OF INFECTION BY SEA.

A and B Quarantine Rules, 1879.

No. 1. Extract from the Proceedings of the Government of India in the Home Department (Sanitary),—under date Simla, the 9th May 1879.

READ the undermentioned papers on the subject of Quarantine Rules for Indian Ports:—

Home Department Resolution No. 308, dated 19th September 1878.

Letter from Government of Madras, No. 676, dated 6th December 1878.

Letter from Government of Bombay, No. 3482, dated 15th November 1878.

Letter from Government of Bengal, No. 4273, dated 9th December 1878.

Letter from Chief Commissioner of British Burma No. 16-20, dated 6th January 1879.

Letter from Superintendent of Port Blair, No. 812-915, dated 6th December 1878.

Despatch from Her Majesty's Secretary of State for India, No. 200, dated 28th November 1878.

RESOLUTION.

In Home Department Resolution of 19th September 1878, after discussing the whole question of quarantine, and the action which has been taken from time to time on that subject in Indian ports, the Government of India laid down two leading principles: *First*, that a system of medical inspection is sufficient to meet the case of all vessels arriving with persons suffering from any disease which is endemic in this country; and *secondly*, that quarantine should be reserved for occasions when there is danger of diseases being imported, which are either unknown or not commonly rife in India—such, for example, as plague and yellow fever. Local Governments and Administrations were requested to submit draft rules in accordance with

these principles—one set for medical inspection which might, if it appeared necessary, be sanctioned under Act I of 1870, and would remain continuously in force; and another set for quarantine, which should be provisional, and would only be enforced, if occasion should arise, with the previous sanction of the Government of India.

2. Replies from the Local Governments, with sets of rules proposed by them, have been received; and in the meantime a despatch has also come from Her Majesty's Secretary of State for India acknowledging the receipt of the Resolution of 19th September 1878. Lord Cranbrook expresses a hope that quarantine "rules may soon be drawn up which shall be consistent with the views of Her Majesty's Government and applicable to the whole of India." At the same time, he points out the importance of meeting the prejudices of other States as far as possible, so as to avoid the risk of restrictions being imposed on vessels passing through the Red Sea; and he adds—"With regard, however, to this point, I would especially impress on you that, if the Indian ports were known to be maintained in a thoroughly sanitary condition, and if a complete system were in force of inspection of vessels arriving in port, including isolation of any persons on board who might be sick from disorders of an epidemic character, it is probable that the susceptibilities of other nations would be sufficiently met, and that all occasion would be taken away for the establishment of quarantine at any time in India." In a further despatch (No. 22, dated 20th February 1879) on a kindred subject, the Secretary of State forwards with approval a letter from the Foreign Office, urging that the enforcement of misapplied quarantine rules at Indian ports "materially weakens the hands of Her Majesty's Government in protesting against bad quarantine arrangements at places belonging to foreign powers."

3. Of the rules submitted by Local Governments, those for Madras were drawn up by a Committee; but the rules for medical inspection appear strict and complicated, and they are mixed up with the rules for quarantine proper. It is of primary importance that the two sets of rules should be kept quite distinct, both because this is more convenient, and also because the one set is to be continuously in force, whereas the other set is to be specially sanctioned only when occasion arises. The Bombay rules are also open to some of the remarks stated above; and they might cause annoyance and hardship. The rules recommended for Calcutta were drawn up by a Committee; but the two sets of rules have not been kept distinct as they ought to be, and they contain some provisions which could hardly be worked in practice. The British Burma rules are simpler, but, if strictly acted on, they might do mischief without conferring any compensating benefit.

The rules for the Andaman and Nicobar Islands make no mention of quarantine or medical inspection. They are intended merely to preserve discipline among the convicts, to prevent escapes and landing of forbidden articles. But the case of the Andamans is so peculiar that the requirements of that Settlement may be left out of account altogether. The case of Aden is under separate consideration.

4. After considering all the replies of Local Governments and the rules submitted by them, the Government of India have caused to be prepared, for the guidance of all Local Governments, two separate sets of rules, which are appended to this Resolution. These two sets of rules must be kept quite distinct from each other. The Quarantine Rules (Appendix B) can be, and are hereby sanctioned under Act I of 1870; but they will only be brought into operation very occasionally, with sanction of the Government of India, which must previously be obtained in each case. Such sanction will be given only in the case of plague, yellow fever, or some fatal epidemic not ordinarily prevalent among Indian populations. The Medical Inspection Rules (Appendix A), on the other hand, are intended for every-day use; they do not provide for any quarantine at all; and they should be regarded as executive orders of Government.

5. In conclusion, the Government of India take this opportunity of pressing upon the Local Governments concerned the great importance of attending to the sanitary condition of Indian ports, as urged by the Secretary of State, and also the good to be derived from seeing that all vessels leaving the port are well found in stores, &c., and are in every other respect in a condition favourable to the health of both passengers and crew.

ORDER.—Ordered, that this Resolution, with the appended Rules, be forwarded to the Governments of Madras, Bombay, and Bengal, the Chief Commissioner of British Burma, and the Superintendent of Port Blair and the Nicobars, for information and guidance; and that a copy be forwarded to Her Majesty's Secretary of State for India.

APPENDIX A.

THE following Rules for the medical inspection of vessels are issued, for the guidance of Port Officers, Pilots, and Medical Officers of Ports, by the with the previous sanction of the Governor General in Council: and they will take effect from the 1st June 1879 in the ports of

I.—The master of every vessel on board of which there is, either among the passengers or crew, any case of cholera, small-pox, or other epidemic disease common in India, shall report such case or cases to the pilot or other boarding officer at the earliest opportunity, or, in the

absence of a pilot or other boarding officer, shall hoist a signal, which shall be during the day flag *R* of the Commercial Code at the main and during the night two lighted lanterns, one over the other, at the fore.

II.—The Port Officer, having received information from the pilot or other boarding officer, or by signal, that any case of such disease is on board, shall communicate the information to the Health Officer of the Port.

III.—The Health Officer, as early as possible after receipt of this information, shall inspect the vessel, and more especially its sanitary condition; shall inquire into the circumstances attending the case or cases of the said disease; and shall arrange for the conveyance of all persons suffering from such disease to a hospital, unless the sick person or his friends can make adequate provision elsewhere.

IV.—The latter part of Rule No. III is, however, not to be enforced in the case of passengers bound for an onward port, unless under the clearest necessity; and of every such case a special report, explaining the reasons for the action taken, must be submitted to the Government.

V.—Where the disease or diseases in question are limited to one or two cases, the vessel shall not be prohibited from taking up the usual place of anchorage in the harbour, nor shall the passengers be detained on board pending the inspection of the Health Officer; but the master of the vessel shall be held responsible that no passenger suspected of having such disease is allowed to depart before this inspection.

VI.—Where cases have been more numerous than one or two, or when, from their occurring on pilgrim or emigrant ships, or for other special reasons, further precautions may be deemed advisable, the vessel shall anchor in the place appointed for the purpose; and none of the passengers shall be allowed to leave until the Health Officer has made his inspection.

VII.—Vessels coming under this last rule shall be thoroughly cleansed and fumigated, under the directions of the Health Officer. In the case of small-pox, it shall also be his duty to vaccinate or have vaccinated all those on board who appear to require this protection and are willing to accept it.

APPENDIX B.

IN exercise of the power conferred by Act I of 1870, the following Rules for quarantine against plague or yellow fever have been made.

by _____, with the previous sanction of the Governor General in Council; they will take effect from the _____ in the port of _____ :—

I.—The commander of every vessel, including buggalows or other native craft, arriving from a port where plague or yellow fever prevails, shall, before entering the harbour, indicate by signal the port from which she has come.

II.—Such commander shall not, without having first obtained permission as hereinafter provided, allow any communication either with the pilot boat, except orally, or with the shore, or with any other vessel or boat in the harbour.

III.—Immediately on the signal of such arrivals being made, the Health Officer of the port shall go alongside the vessel, and ascertain by enquiry from the commander whether any person on board is then suffering, or has during the voyage suffered, from plague; and if such officer is satisfied by such enquiry that no such case has occurred, he shall by writing under his hand, to be delivered to the commander, permit free communication between such vessel and the shore, and with other vessels and boats in the harbour.

IV.—If the Health Officer shall have reason to believe that any such case has occurred, he shall direct the commander to take the vessel to the quarantine anchorage duly appointed and notified by Government, there to remain for the space of fifteen days from the day of arrival in the harbour or from the date of the occurrence of the latest case of illness, and shall further direct the commander to prohibit during the said fifteen days all communication, except such as is hereinafter provided for, between such vessel and the shore, or other vessels or boats in the harbour. The Health Officer may further direct the removal of so many of the passengers and crew as may not be suffering from sickness, and whose services may not be required on board the ship, to such particular spots as may from time to time be fixed upon by the Local Government as places of quarantine, there to remain for a space of fifteen days, or, in the event of the occurrence of a case of sickness, for a space of fifteen days from the date of the occurrence of the last case.

V.—Any mails or cargo which may be brought by any vessel so arriving shall be landed under such precautions as may be deemed necessary by the Health Officer to prevent the spread of the disease.

VI.—It will be the duty of the Superintendent of Marine to facilitate the conveyance to the vessel in quarantine of all supplies of provisions, stores, and other articles required by those on board. These supplies should be placed on the boats of the vessel, to be subsequently removed by members of her crew.

time when the vessel arrives in the harbour, that any person on board is suffering, or during the voyage has suffered, from plague, or if during the time the ship is in quarantine at Matecabrooj under Rule VIII, any case of the disease breaks out, he shall direct the Commander to take the vessel to the quarantine anchorage at Diamond Harbour or elsewhere, and there to remain for a period of fifteen days from the day of arrival in the harbour; and shall further direct that during such fifteen days intercourse between the vessel detained under this rule or Rule III, and the shore or other vessels and boats in the harbour shall be prohibited as provided in Rule II.

X.—If during the period a vessel is at the quarantine anchorage aforesaid any case or cases of plague should occur on board, the said vessel shall remain in quarantine for a period of fifteen days from the date of the last case occurring, and be subject to all the prohibitions provided for in Rule IX.

XI.—When any vessel has been placed in quarantine as aforesaid, the Health Officer may direct the removal of so many of the passengers and crew as may not be suffering from illness, and whose services may not be required on board the vessel, to such particular spots as may from time to time be selected by the Port Officer as places of quarantine, there to remain for a period of eight days. If under Rule VIII, or if the vessel has been placed in quarantine for fifteen days for a period of fifteen days. If a case of plague occurs among such passengers and crew during any such period, they shall remain in a place of quarantine for a period of fifteen days from the date of the occurrence of the last case of such illness.

XII.—It will be the duty of the Port Officer to facilitate the conveyance to all vessels in quarantine of such supplies of provisions, stores and other articles as may be required by those on board. Such supplies will be placed on the boats of the vessels in quarantine to be subsequently removed by members of their crews.

Government of India, copy of a Notification No. 2780, dated 26th July 1894, containing rules for the enforcement of quarantine at ports in the Bombay Presidency against arrivals from Hong-Kong and Canton in modification of the rules published in the notification of this Government, No. 2641, dated 16th instant, a copy of which was forwarded to the Government of India with the letter from this Government, No. 2643 of the same date.

Notification No. 2780, dated Bombay Castle, the 26th July 1894.

In exercise of the power conferred by Act I of 1870, the following rules for quarantine against plague have been made by the Government of Bombay, with the previous sanction of the Governor General in Council, in modification of those published in Government Notification No. 2641, dated 16th July 1894: they have effect in the ports of the Bombay Presidency, including Sind, as a temporary measure:—

- I.—The Commander of every vessel, including buggalows or other native craft arriving at ports in the Bombay Presidency, including Sind, from Hong-Kong and Canton, shall, before entering the harbour, hoist a yellow flag (or if entering a port at night time, show whatever quarantine light signals are customary in the port) and indicate by signal the port from which such vessel has come, and shall keep such flag and signals flying until permitted to take them down as hereinafter provided. The pilot on going alongside a vessel from Hong-Kong and Canton shall direct the flag prescribed above to be hoisted, if it has not already been done.
- II.—Such Commander shall not, without first having obtained permission as hereinafter provided, allow any communication, except orally, with the shore or any other vessel or boat, excepting with the boat supplying pilots, and in that case communication shall be limited to receiving on board the pilot, his servant and baggage.
- III.—On any such arrival being signalled, the Health Officer of the Port shall, as soon as possible, go alongside the vessel and ascertain by enquiry from the Commander whether any person on board is suffering, or has during the voyage suffered, from plague, and if the Health Officer is satisfied by such enquiry that no person on board is suffering, or during the voyage has suffered, from plague, and if the ship carries a qualified Medical Officer quarantine shall be dispensed with, and pratique granted.

If the vessel does not carry a qualified Medical Officer, he shall direct the Commander to take the vessel to the quarantine anchorage duly appointed and notified by Government, and there to remain for a period of eight clear days from the date of arrival in the harbour. The Health Officer shall also direct the Commander to prohibit, during the period for which the vessel remains at the quarantine anchorage as aforesaid, all communication, except such as is hereinafter provided for, between such vessel and the shore or other vessels and boats in the harbour.

IV.—If the Health Officer, as the result of the enquiry made under paragraph III above, shall have reason to believe at the time when the vessel arrives in the harbour that any person on board is suffering, or during the voyage has suffered, from plague, he shall direct the Commander to take the vessel to the quarantine anchorage as aforesaid, and there to remain for a period of fifteen days from the day of arrival in the harbour: and shall further direct that during such fifteen days intercourse between the said vessel and the shore, or other vessels and boats in the harbour, shall be prohibited, as provided in Rule III.

V.—If during the period a vessel is at the quarantine anchorage aforesaid any case or cases of plague should occur on board, the said vessel shall remain in quarantine for a period of fifteen days from the date of termination of the last case either by death, recovery or removal from the vessel, and be subject to all the prohibitions provided for in Rules III and IV.

VI.—When any vessel has been placed in quarantine as aforesaid, the Health Officer may direct the removal of so many of the passengers and crew as may not be suffering from illness, and whose services may not be required on board the vessel, to such particular spots as may from time to time be selected by Government as places of quarantine, there to remain for a period of eight days, or if the vessel has been placed in quarantine for fifteen days, for a period of fifteen days. If a case of plague occurs among such passengers and crew during any such period, they shall remain in a place of quarantine for a period of fifteen days from the date of the occurrence of the last case of such illness.

VII.—Any mails or cargo which may be brought by any vessel so arriving shall be landed under such precautions as the Health Officer may deem necessary to prevent the spread of the disease.

VIII.—It will be the duty of the Port Officer to facilitate the conveyance to all vessels in quarantine of such supplies of provisions, stores and other articles as may be required by those on board. Such supplies will be placed on the boats of the vessels in quarantine to be subsequently removed by members of their crews.

IX.—All vessels arriving at Bombay ports, which may have communicated with vessels coming from Hongkong and Canton, shall be subjected to the same rules as vessels arriving at Bombay ports from Hongkong and Canton.

By order of His Excellency the Right Honourable the Governor in Council.

Quarantine Rules issued during the present Epidemic before the Venice Convention.

QUARANTINE AT ADEN AND OTHER INDIAN PORTS.

No. 4.

Telegram, dated 6th October 1896.

From—Government of Bombay, General Department, Bombay,
To—Home, Simla.

Following telegram dated 5th received from Consul, Alexandria :—
Begins. Sanitary Board have decided to apply from 5th to arrivals from Bombay provisionally plague regulations in force since 13th June 1894.—*Message ends.* Please sanction quarantine, Aden.

No. 5.

Telegram No. 275, dated 7th October 1896.

From—Home, Simla,
To—Government of Bombay, General Department.

Your telegram of 6th instant. Governor General in Council sanctions as a temporary measure the issue of rules similar to those in Bombay Notification No. 2780, dated 26th July 1894, to take effect at the Aden Ports against arrivals from Bombay. Please wire date of Notification publishing the rules, and send copy for republication in *Gazette of India*.

Telegram, dated 7th October 1896.

From—Government of Bombay, General Department, Poona,
To—Home, Simla.

No. 6.

Your telegram Mo. 275, Sanitary, dated 7th instant. Rules issued to-day.

Telegram No. P.-161, dated 8th October 1896.

From—Government of Bombay, General Department, Poona,
To—Home, Simla.

No. 7.

Commissioner in Sind proposes to apply B. quarantine rules at Karachi against vessels arriving with plague on board. Act one of 1870 is in force in Sind. This Government support proposal, but are inclined to think the period of 15 days prescribed by rule 4 is excessive, on which point, however, Government of India will be further addressed. Please wire orders.

Telegram No. 290, dated 9th October 1896.

From—Home, Simla,
To—Government of Bombay, General Department.

No. 8.

Your telegram P.-161, 8th October. Is there no danger if we impose lighter quarantine rules at Karachi than at Aden that Egypt and other nations may not, considering the short distance between Bombay and Karachi, treat vessels from Karachi in the same way as they treat vessels from Bombay? The imposition of a quarantine against Karachi as well as against Bombay would be so serious a matter that the Government of India would be glad to receive opinion of Bombay Government on this point before sanctioning B. quarantine rules for Karachi.

Telegram, dated 8th October 1896.

From—Government of Bombay, General Department, Bombay,
To—Home, Simla.

No. 9.

British Consul, Alexandria, telegraphs:—*Begins.* Sanitary Board have decided to apply from 3rd October last to arrivals from Assy between Lith and Lohaya provisionally Plague Regulations in force since 13th June 1894.—*Ends.* Please sanction imposition at Aden against arrivals from those places.

Telegram No. 292 (Sanitary), dated 10th October 1896.

From—Home, Simla,
To—Government of Bombay, General Department.

No. 10.

Your telegram, 8th October. Governor General in Council sanctions, as temporary measure, issue of rules on lines of those issued in

Bombay Notification No. 2780, dated 26th July 1894, under section 1 of Act I of 1870, against arrivals from Assy between Lith and Lohaya at port of Adcn. Please wire date of Notification publishing rules and send copy for republication in *Gazette of India*.

No. II.

Notification No. 300, dated Simla, the 12th October 1896.

The following rules for quarantine against plague which have been made by the Bombay Government in exercise of the power conferred by section 1, Act I of 1870, with the previous sanction of the Governor General in Council, are published for general information. Rules at A
against Bo

The rules have effect from the 5th October 1896, as a temporary measure, in the Ports of Aden, Perim and the Somali Coast:

I.—The Commander of every vessel, including buggalows or other native craft, arriving at Aden, Perim and the Somali Coast from Bombay shall, before entering the harbour, hoist a yellow flag (or if entering a port at night time, show whatever quarantine light signals are customary in the port) and indicate by signal the port from which such vessel has come, and shall keep such flag and signals flying until permitted to take them down as hereinafter provided. The pilot on going alongside a vessel from Bombay shall direct the flag prescribed above to be hoisted, if it has not already been done.

II.—Such Commander shall not, without first having obtained permission as hereinafter provided, allow any communication, except orally, with the shore or any other vessel or boat, excepting with the boat supplying pilots, and in that case communication shall be limited to receiving on board the pilot, his servant and baggage.

III.—On any such arrival being signalled, the Health Officer of the Port shall, as soon as possible, go alongside the vessel and ascertain by enquiry from the Commander whether any person on board is suffering, or has during the voyage suffered from plague, and if the Health Officer is satisfied by such enquiry that no person on board is suffering, or during the voyage has suffered from plague, and if the ship carries a qualified Medical Officer, quarantine shall be dispensed with, and pratique granted. If the vessel does not carry a qualified Medical Officer, he shall direct the Commander to take the vessel to the quarantine anchorage duly appointed and notified by the Resident and there to remain for a period of eight clear days from

the date of arrival in the harbour. The Health Officer shall also direct the Commander to prohibit, during the period for which the vessel remains at the quarantine anchorage as aforesaid, all communication except such as is hereinafter provided for, between such vessel and the shore or other vessels and boats in the harbour.

IV.—If the Health Officer, as the result of the enquiry made under paragraph III above, shall have reason to believe at the time when the vessel arrives in the harbour that any person on board is suffering, or during the voyage has suffered, from plague, he shall direct the Commander to take the vessel to the quarantine anchorage as aforesaid, and there to remain for a period of fifteen days from the day of arrival in the harbour; and shall further direct that during such fifteen days intercourse between the said vessel and the shore or other vessels and boats in the harbour shall be prohibited as provided in Rule III.

V.—If during the period a vessel is at the quarantine anchorage aforesaid any case or cases of plague should occur on board, the said vessel shall remain in quarantine for a period of fifteen days from the date of termination of the last case either by death, recovery or removal from the vessel and be subject to all the prohibitions provided for in Rules III and IV.

VI.—When any vessel has been placed in quarantine as aforesaid, the Health Officer may direct the removal of so many of the passengers and crew as may not be suffering from illness, and whose services may not be required on board the vessel, to such particular spots as may from time to time be selected by the Resident as places of quarantine, there to remain for a period of eight days, or if the vessel has been placed in quarantine for fifteen days, for a period of fifteen days. If a case of plague occurs among such passengers and crew during any such period, they shall remain in a place of quarantine for a period of fifteen days from the date of the occurrence of the last case of such illness.

VII.—Any mails or cargo which may be brought by any vessel so arriving shall be landed under such precautions as the Health Officer may deem necessary to prevent the spread of the disease.

VIII.—It will be the duty of the Port Officer to facilitate the conveyance to all vessels in quarantine of such supplies of

provisions, stores and other articles as may be required by those on board. Such supplies will be placed on the boats of the vessels in quarantine to be subsequently removed by members of their crews.

IX.—All vessels arriving at Aden, Perim and the Somali Coast which may have communicated with vessels coming from Bombay, shall be subjected to the same rules as vessels arriving at Aden, Perim and the Somali Coast from Bombay.

No. 12.

Telegram No. 300, dated 9th October 1896

From—Chief Commissioner of Burma, Rangoon,

To—Home, Simla.

With reference to Bubonic Plague, Bombay, orders are solicited as to whether rules should be issued as a temporary measure against arrivals from Bombay on lines of rules published in Burma General Department Notification No. 197 of 27th July 1894.

No. 13.

Telegram, dated 10th October 1896.

From—Government of Bengal, Marine Department, Darjeeling,

To—Home, Simla.

Lieutenant-Governor desires to notify if required our 1894 Quarantine Rules with verbal modifications for Bombay. Sanction is requested.

No. 14.

Telegram No. 301 (Sanitary), dated 12th October 1896.

From—Home, Simla,

To—Government of Bengal, Marine Department, Darjeeling.

Your telegram 10th. It has been suggested to impose quarantine against Bombay at all Indian ports, rules being similar to those enforced at Aden—see *Bombay Government Gazette* of 8th October—with proviso that if pratique is granted at any intermediate port including Colombo there will be no detention unless case of disease on board. In other respects Bengal Rules of 1894 rendered necessary by circumstances of Calcutta and other local ports may be enforced. Please refer to Aden Rules and say whether Lieutenant-Governor has any objection to this for Calcutta and subsidiary ports.

No. 15.

Telegram No. 302 (Sanitary), dated 12th October 1896.

From—Home, Simla,

To—Government of Madras.

It has been suggested that quarantine be imposed against Bombay at all Indian ports, rules being similar to those enforced at Aden—

see *Bombay Government Gazette* of 8th October—with proviso that if pratique is granted at any port including Colombo there will be no detention unless case of disease on board. Has Madras Government any objection to this for Madras and subsidiary ports?

Telegram No. 303 (Sanitary), dated 12th October 1896.

From—Home, Simla,

No. 16.

To—Government of Bombay, General Department, Poona.

Is there objection on part of Bombay Government to impose quarantine against Bombay at all Indian ports, rules being similar to those enforced at Aden with proviso that if pratique is granted at any port including Colombo there will be no further detention unless case of disease on board? Does Bombay Government approve of this for Bombay ports?

Telegram, dated 10th October 1896.

No. 17.

From—Government of Bombay, General Department,

To—Home, Simla.

After considering available information about incubation period this Government agree that Aden Quarantine Rules should be applied to Karachi.

Telegram No. 304 (Sanitary), dated 12th October 1896.

No. 18.

From—Home, Simla,

To—Government of Bombay, General Department, Poona.

Your telegram of 10th. The Government of India sanction application of Aden Quarantine Rules to Karachi. Please wire date of publication and send copy.

Telegram, dated 13th October 1896.

From—Government of Bombay,

No. 19.

To—Home, Simla.

Your telegram 304 Sanitary. Notification enforcing quarantine at Karachi issued to-day.

Telegram No. 186-P., dated 14th October 1896.

No. 20.

From—Government of Bombay, General Department, Poona.

To—Home, Simla.

Your telegram No. 303. This Government desire to leave India to decide regarding quarantine at ports outside this Presidency. At ports in this Presidency except Karachi quarantine not considered

necessary. As plague shows signs of diminution it is not desirable to hamper passenger traffic between Bombay and minor ports on Bombay coast.

No. 21.

Telegram, dated 15th October 1896.

From—Government of Madras, Marine Department, Ootacamund,
To—Home, Simla.

Your wire 302 (Sanitary), dated 12th. Madras Government has no objection to proposed quarantine against Bombay.

No. 22.

Telegram, dated 15th October 1896.

From—Government of Bengal, Marine Department, Darjeeling,
To—Home, Simla.

Your 301 of 12th. Lieutenant-Governor has no objection to provisions regarding pratique at Colombo or intermediate ports, otherwise the Bengal rules of July 1894 seem suitable for the Hooghly and Chittagong. Necessity of rules for Orissa ports under enquiry.

No. 23.

Telegram No. 338 (Sanitary), dated 18th October 1896.

From—Home, Simla,
To—Chief Commissioner of Burma, Rangoon.

Your telegram of 9th. Governor General in Council sanctions, as a temporary measure the issue of quarantine rules against Bombay, similar to those of 27th July 1894 for port of Rangoon only, subject to this modification that, if there is no case of plague on board, pratique may be granted at discretion of Health Officer whether vessel carries qualified Medical Officer or not. No quarantine rules are deemed necessary at present for subordinate ports in Burma. Rules should recognize pratique at Colombo. Please wire date of Notification publishing rules, and send copy for publication in *Gazette of India*.

No. 24.

Telegram No. 340 (Sanitary), dated 18th October 1896.

From—Home, Simla,
To—Government of Bengal, Marine Department, Darjeeling.

Your telegram of 15th. Governor General in Council sanctions, as a temporary measure, the issue of quarantine rules against Bombay, similar to those of July 1894 for the port of Calcutta only. No quarantine rules are deemed necessary at present for subordinate ports in Bengal. Calcutta rules should recognize pratique at Colombo. Please wire date of Notification publishing rules and send copy for publication in *Gazette of India*.

Telegram No. 342 (Sanitary), dated 18th October 1896.

No. 25.

From—Home, Simla,

To—Government of Madras, Marine Department, Ootacamund.

Your telegram of 15th. Governor General in Council sanctions, as a temporary measure, the issue of quarantine rules against Bombay, similar to those of 26th July 1894 for port of Madras only, subject to this modification that, if there is no case of plague on board, pratique may be granted at discretion of Health Officer whether vessel carries qualified Medical Officer or not. No quarantine rules are deemed necessary at present for subordinate ports in Madras. Rules should recognize pratique at Colombo. Please wire date of Notification publishing rules and send copy for publication in *Gazette of India*.

Telegram No. 343 (Sanitary), dated 18th October 1896.

No. 26.

From—Home, Simla,

To—Government of Bombay, General Department.

Following telegrams sent to-day:—To Chief Commissioner, Burma:—*Begins*. (Here read telegram No. 338.)—*Ends*. To Bengal:—*Begins*. (Here read telegram No. 340.)—*Ends*. To Madras:—*Begins*. (Here read telegram No. 342.)—*Ends*.

Telegram No. 344, dated 18th October 1896.

No. 27.

From—Home, Simla,

To—Government of Bombay, General Department, Poona.

Your telegram of 14th. No quarantine rules are deemed necessary for subordinate ports in Bombay other than Karachi.

Telegram, dated 20th October 1896.

No. 28.

From—Government of Bengal, Marine Department, Darjeeling,

To—Home, Simla.

Rules for quarantine, Port of Calcutta, issued under Notification No. 126, dated 20th instant. Copy being forwarded to you.

Telegram No. 306, dated 19th October 1896.

No. 29.

From—Chief Commissioner of Burma, Rangoon,

To—Home, Simla.

Your 338 Sanitary of 18th October. Quarantine rules published in General Department Notification dated 20th October.

No. 30. Notification by the Government of India, Home Department, No. 353, dated Simla, the 22nd October 1896. Rules at Aden
against Assy

The following rules for quarantine against plague which have been made by the Bombay Government in exercise of the power conferred by section 1, Act I of 1870, with the previous sanction of the Governor General in Council, are published for general information.

The rules have effect from the 3rd October 1896, as a temporary measure in the Ports of Aden, Perim and the Somali Coast :—

I.—The Commander of every vessel, including buggalows or other native craft, arriving at Aden, Perim, and the Somali Coast from Assyr between Lith and Lohaya shall, before entering the harbour, hoist a yellow flag (or if entering a port at night time, show whatever quarantine light signals are customary in the port) and indicate by signal the port from which such vessel has come, and shall keep such flag and signals flying until permitted to take them down as hereinafter provided. The pilot on going alongside a vessel from Assyr between Lith and Lohaya shall direct the flag prescribed above to be hoisted, if it has not already been done.

II.—Such Commander shall not, without first having obtained permission as hereinafter provided, allow any communication, except orally, with the shore or any other vessel or boat, excepting with the boat supplying pilots, and in that case communication shall be limited to receiving on board the pilot, his servant and baggage.

III.—On any such arrival being signalled, the Health Officer of the port shall, as soon possible, go alongside the vessel and ascertain by enquiry from the Commander whether any person on board is suffering, or has during the voyage suffered from plague, and if the Health Officer is satisfied by such enquiry that no person on board is suffering, or during the voyage has suffered, from plague, and if the ship carries a qualified Medical Officer, quarantine shall be dispensed with, and pratique granted.

If the vessel does not carry a qualified Medical Officer, he shall direct the Commander to take the vessel to the quarantine anchorage duly appointed and notified by the Resident, and there to remain for a period of eight clear days from the date of arrival in the harbour. The Health Officer shall also direct the Commander to prohibit, during the period for which the vessel remains at the quarantine anchorage as aforesaid, all communication,

Telegram No. 342 (Sanitary), dated 18th October 1896.

No. 25.

From—Home, Simla,

To—Government of Madras, Marine Department, Ootacamund.

Your telegram of 15th. Governor General in Council sanctions, as a temporary measure, the issue of quarantine rules against Bombay, similar to those of 26th July 1894 for port of Madras only, subject to this modification that, if there is no case of plague on board, pratique may be granted at discretion of Health Officer whether vessel carries qualified Medical Officer or not. No quarantine rules are deemed necessary at present for subordinate ports in Madras. Rules should recognize pratique at Colombo. Please wire date of Notification publishing rules and send copy for publication in *Gazette of India*.

Telegram No. 343 (Sanitary), dated 18th October 1896.

No. 26.

From—Home, Simla,

To—Government of Bombay, General Department.

Following telegrams sent to-day:—To Chief Commissioner, Burma:—*Begins*. (Here read telegram No. 338.)—*Ends*. To Bengal:—*Begins*. (Here read telegram No. 340.)—*Ends*. To Madras:—*Begins*. (Here read telegram No. 342.)—*Ends*.

Telegram No. 344, dated 18th October 1896.

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From—Home, Simla,

To—Government of Bombay, General Department, Poona.

Your telegram of 14th. No quarantine rules are deemed necessary for subordinate ports in Bombay other than Karachi.

Telegram, dated 20th October 1896.

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From—Government of Bengal, Marine Department, Darjeeling,

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Telegram No. 306, dated 19th October 1896.

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From—Chief Commissioner of Burma, Rangoon,

To—Home, Simla.

Your 338 Sanitary of 18th October. Quarantine rules published in General Department Notification dated 20th October.

No. 30. Notification by the Government of India, Home Department, No. 353, dated Rules at Aden
Simla, the 22nd October 1896. against Assyr.

The following rules for quarantine against plague which have been made by the Bombay Government in exercise of the power conferred by section 1, Act I of 1870, with the previous sanction of the Governor General in Council, are published for general information.

The rules have effect from the 3rd October 1896, as a temporary measure in the Ports of Aden, Perim and the Somali Coast:—

I.—The Commander of every vessel, including buggalows or other native craft, arriving at Aden, Perim, and the Somali Coast from Assyr between Lith and Lohaya shall, before entering the harbour, hoist a yellow flag (or if entering a port at night time, show whatever quarantine light signals are customary in the port) and indicate by signal the port from which such vessel has come, and shall keep such flag and signals flying until permitted to take them down as hereinafter provided. The pilot on going alongside a vessel from Assyr between Lith and Lohaya shall direct the flag prescribed above to be hoisted, if it has, not already been done.

II.—Such Commander shall not, without first having obtained permission as hereinafter provided, allow any communication, except orally, with the shore or any other vessel or boat, excepting with the boat supplying pilots, and in that case communication shall be limited to receiving on board the pilot, his servant and baggage.

III.—On any such arrival being signalled, the Health Officer of the port shall, as soon possible, go alongside the vessel and ascertain by enquiry from the Commander whether any person on board is suffering, or has during the voyage suffered from plague, and if the Health Officer is satisfied by such enquiry that no person on board is suffering, or during the voyage has suffered, from plague, and if the ship carries a qualified Medical Officer, quarantine shall be dispensed with, and pratique granted.

If the vessel does not carry a qualified Medical Officer, he shall direct the Commander to take the vessel to the quarantine anchorage duly appointed and notified by the Resident, and there to remain for a period of eight clear days from the date of arrival in the harbour. The Health Officer shall also direct the Commander to prohibit, during the period for which the vessel remains at the quarantine anchorage as aforesaid, all communication,

placed on the boats of the vessels in quarantine to be subsequently removed by members of their crews.

IX.—All vessels arriving at Aden, Perim and the Somali Coast, which may have communicated with vessels coming from Assyr between Lith and Lohaya, shall be subjected to the same rules as vessels arriving at Aden, Perim and the Somali Coast from Assyr between Lith and Lohaya.

No. 31. Notification by the Government of India, Home Department, No. 354, dated Rules at Karachi Simla, the 22nd October 1896. against Bombay.

The following rules for quarantine against plague which have been made by the Bombay Government in exercise of the power conferred by section 1, Act I of 1870, with the previous sanction of the Governor General in Council, are published for general information.

The rules have effect from the 13th October 1896 as a temporary measure at the port of Karachi :—

I.—The Commander of every vessel, including buggalows or other native craft, arriving at Karachi from Bombay shall, before entering the harbour, hoist a yellow flag (or if entering a port at night time, show whatever quarantine light signals are customary in the port) and indicate by signal the port from which such vessel has come, and shall keep such flag and signals flying until permitted to take them down as hereinafter provided. The pilot going alongside a vessel from Bombay shall direct the flag prescribed above to be hoisted, if it has not already been done.

II.—Such Commander shall not, without first having obtained permission as hereinafter provided, allow any communication, except orally, with the shore or any other vessel or boat, excepting with the boat supplying pilots, and in that case communication shall be limited to receiving on board the pilot, his servant and baggage.

III.—On any such arrival being signalled, the Health Officer of the Port shall, as soon as possible, go alongside the vessel and ascertain by enquiry from the Commander whether any person on board is suffering, or has during the voyage suffered, from plague, and if the Health Officer is satisfied by such enquiry that no person on board is suffering, or during the voyage has suffered, from plague, and if the

ship carries a qualified Medical Officer, quarantine shall be dispensed with, and pratique granted.

If the vessel does not carry a qualified Medical Officer, he shall direct the Commander to take the vessel to the quarantine anchorage duly appointed and notified by the Commissioner in Sind, and there to remain for a period of eight clear days from the date of arrival in the harbour. The Health Officer shall also direct the Commander to prohibit, during the period for which the vessel remains at the quarantine anchorage as aforesaid, all communication, except such as is hereinafter provided for, between such vessel and the shore or other vessels and boats in the harbour.

IV.—If the Health Officer, as the result of the enquiry made under paragraph III above, shall have reason to believe at the time when the vessel arrives in the harbour that any person on board is suffering or during the voyage has suffered, from plague, he shall direct the Commander to take the vessel to the quarantine anchorage as aforesaid, and there to remain for a period of fifteen days from the day of arrival in the harbour; and shall further direct that during such fifteen days' intercourse between the said vessel and the shore or other vessels and boats in the harbour shall be prohibited as provided in Rule III.

V.—If during the period a vessel is at the quarantine anchorage aforesaid any case or cases of plague should occur on board, the said vessel shall remain in quarantine for a period of fifteen days from the date of termination of the last case either by death, recovery or removal from the vessel and be subject to all the prohibitions provided for in Rules III and IV.

VI.—When any vessel has been placed in quarantine as aforesaid, the Health Officer may direct the removal of so many of the passengers and crew as may not be suffering from illness, and whose services may not be required on board the vessel, to such particular spots as may from time to time be selected by the Commissioner in Sind as places of quarantine, there to remain for a period of eight days, or if the vessel has been placed in quarantine for fifteen days, for a period of fifteen days. If a case of plague occurs among such passengers and crew during

any such period, they shall remain in a place of quarantine for a period of fifteen days from the date of the occurrence of the last case of such illness.

VII.—Any mails or cargo which may be brought by any vessel so arriving shall be landed under such precautions as the Health Officer may deem necessary to prevent the spread of the disease.

VIII.—It will be the duty of the Port Officer to facilitate the conveyance to all vessels in quarantine of such supplies of provisions, stores and other articles as may be required by those on board. Such supplies will be placed on the boats of the vessels in quarantine to be subsequently removed by members of their crews.

IX.—All vessels arriving at Karachi which may have communicated with vessels coming from Bombay, shall be subjected to the same rules as vessels arriving at Karachi from Bombay.

No. 32.

Telegram, dated 20th October 1896.

From—Government of Bombay, General Department, Bombay,

To—Home, Simla.

Commissioner, Burma, telegraphs: Eight days' quarantine imposed at Rangoon against Bombay arrivals. Pratique at Colombo and other British ports recognized.

No. 33.

Telegram, dated 18th October 1896.

From—Government of Bengal, Marine Department, Darjeeling,

To—Home, Simla.

Lieutenant-Governor proposes to impose at once quarantine rules at Calcutta and Chittagong similar to those of July 1894, but including provisions regarding pratique at Colombo or intermediate ports. Sanction by wire solicited.

No. 34.

No. 3081-T. M., dated Darjeeling, 18th October 1896.

From—The Secretary to the Government of Bengal, Marine Department,

To—The Secretary to the Government of India, Home Department.

With reference to your telegram No. 301, dated the 12th instant, and in continuation of this Department's telegrams of the 15th and

18th instant, I am directed to forward, for the approval of the Government of India, the enclosed copies of quarantine rules* which have been framed for the ports of Calcutta and Chittagong respectively.

* Not printed.

2. These rules will be notified in the *Calcutta Gazette* and published in the newspapers as soon as sanction to their imposition is received in reply to this Department's telegram of the 18th instant referred to above.

3. As regards the Orissa ports, I am to say that vessels from Bombay rarely visit them, but to provide against such a contingency rules empowering the Port Officers of Chandballi and False Point to prohibit any communication with the shore in the case of vessels which have not been granted pratique at Colombo, or other intermediate port, or which have suspicious cases of sickness on board, are being drafted and will shortly be submitted to the Government of India. There are no Health Officers at Chandballi or False Point and the course proposed seems the only one possible.

Notification by the Government of India, Home Department, No. 359, dated No. 35. Simla, the 23rd October 1896.

Rules at Calcutta
against Bombay.

The following rules for quarantine against plague which have been made by the Bengal Government in exercise of the power conferred by section 1, Act I of 1870, with the previous sanction of the Governor General in Council, are published for general information.

The rules have effect from the 21st October 1896, as a temporary measure, at the Port of Calcutta:—

I.—The Commander of every vessel, including buggalows or other native craft arriving from Bombay, shall, on arrival at the Sandheads, hoist a yellow flag, and indicate by signal the port from which she has come, and shall keep such flag and signal flying until permitted to take it down as hereinafter provided. The pilot, on going alongside a vessel from Bombay, shall direct the flag prescribed above to be hoisted if it has not already been done.

II.—The Commander shall not, without first having obtained permission as hereinafter provided, allow any communication except orally with the shore or any other vessel or boat, excepting only with the boat supplying the Pilots*

* *N. B.*—Pilotage is compulsory for all vessels over 100 tons in the Port of Calcutta. from the Pilot Brig, and in that case communication

shall be limited to receiving on board the Pilot, his Leadsman, servant and baggage.

III.—If there is any case of sickness on board, and the Pilot has reason to believe that it is plague, he shall telegraph to the Port Officer from Saugor, and not proceed beyond Diamond Harbour without the permission of the Port Officer.

IV.—If the Pilot has no reason to believe that there is any one suffering from plague on board, he shall bring the vessel up the river to Matecabrooj, and shall anchor it there till the Health Officer has visited it.

V.—The Health Officer, as soon as he has received information of the vessel at Matecabrooj, shall visit it, and ascertain by enquiry from the Commander or the Medical Officer on board, or other sources of information, whether any person on board is suffering or has suffered from plague.

VI.—If the Health Officer is satisfied that no one is suffering from plague, or has suffered from plague since the vessel left Bombay, and if the vessel has been allowed pratique at any intermediate port including Colombo, he shall allow the passengers to land, but shall detain the vessel at Matecabrooj till such measures have been taken for the disinfection of the mails and cargo and hold as he may consider necessary.

VII.—When he is satisfied that the necessary measures have been taken for the disinfection of the mails, cargo and hold, he shall allow the mails and cargo to be landed, and shall by writing under his hand, to be delivered to the Commander, permit such vessel to haul down the yellow flag, and to proceed upwards in the Port, and to hold free communication with the shore and with vessels and boats in port.

VIII.—If the vessel has not been allowed pratique at Colombo or other intermediate ports, or if through her not carrying a qualified Medical Officer, or for other reasons, the Health Officer is not satisfied that no one on board has suffered during the voyage from plague, he shall direct the Commander to take the vessel to the quarantine anchorage at Matecabrooj or elsewhere duly appointed by the Port Officer, there to remain for a period of eight days from the date of arrival in harbour. The Health

Officer shall also direct the Commander to prohibit, during the period for which the vessel remains at the quarantine anchorage as aforesaid, all communication, except such as is hereinafter provided for, between such vessel and the shore or other vessels, or boats in the harbours.

IX.—If the Health Officer, as the result of the enquiry made under paragraph V above, shall have reason to believe, at the time when the vessel arrives in the harbour, that any person on board is suffering from plague, or if during the time the ship is in quarantine at Mateeabrooj under Rule VIII, any case of the disease breaks out, he shall direct the Commander to take the vessel to the quarantine anchorage at Diamond Harbour or elsewhere duly appointed by the Port Officer, there to remain for a period of fifteen days from the day of arrival in the harbour; and shall further direct that during such fifteen days, intercourse between the vessel detained under this Rule, or Rule III, and the shore or other vessels or boats in the harbour, shall be prohibited as provided in Rule II.

X.—If during the period a vessel is at the quarantine anchorage aforesaid, any case or cases of plague should occur on board, the said vessel shall remain in quarantine for a period of fifteen days from the date of the last case occurring, and be subject to all the prohibitions provided for in Rule IX.

XI.—When any vessel has been placed in quarantine as aforesaid, the Health Officer may direct the removal of so many of the passengers and crew as may not be suffering from illness, and whose services may not be required on board the vessel, to such particular spots as may from time to time be selected by the Port Officer as places of quarantine, there to remain for a period of eight days if under Rule VIII, or if the vessel has been placed in quarantine for fifteen days, for a period of fifteen days. If a case of plague occurs among such passengers and crew during any such period, they shall remain in a place of quarantine for a period of fifteen days from the date of the occurrence of the last case of such illness.

XII.—It will be the duty of the Port Officer to facilitate the conveyance to all vessels in quarantine of such supplies

of provisions, stores and other articles as may be required by those on board. Such supplies will be placed on the boats of the vessels in quarantine, to be subsequently removed by members of their crews.

No. 36.

Telegram, dated the 23rd October 1896.

From—Government of Madras, Marine Department,

To—Home, Simla.

Your telegram 342-Sanitary. Quarantine against Bombay will be imposed at Port of Madras, with effect from the 28th instant. Copy of rules follows.

No. 37.

Telegram, dated 24th October 1896.

From—Government of Madras, Marine Department,

To—Home, Simla.

In continuation of my telegram, dated the 23rd instant, on subject of quarantine at Port of Madras. His Excellency in Council suggests quarantine at all west coast ports of this Presidency. Please wire if orders may issue accordingly.

No. 38.

Telegram, dated 25th October 1896.

From—Home, Simla,

To—Government of Madras, Marine Department.

Your telegram of 24th. Government of India carefully considered advisability of imposing quarantine at intermediate ports in India and decided not to do so. Quarantine against Bombay is being imposed at ports in direct communication with Europe and at no other.

No. 39. Notification by the Government of India, Home Department, No. 369, dated Simla, the 29th October 1896.

The following rules for quarantine against plague which have been made by the Chief Commissioner of Burma in exercise of the power conferred by section 1, Act I of 1870, with the previous sanction of the Governor General in Council, are published for general information.

Rules at Rangoon against Bombay.

The rules have effect from the 20th October 1896, as a temporary measure in the Port of Rangoon :—

- I.—The Commander of every vessel, including junks or other native craft, arriving from Bombay, shall, on arrival at the pilot brig hoist a yellow flag and indicate by signal the port from which she has come.
- II.—Such Commander shall not, except as hereinafter provided, allow any communication either with the shore or with any other vessel or boat except with the boat supplying a pilot from the pilot brig, and in that case communication shall be limited to receiving on board the pilot, his servant, if any, and baggage.
- III.—The pilot shall not take such vessel higher than Elephant Point, but shall anchor it there until the Health Officer of the Port has visited it and ascertained by enquiry from the Commander whether any person on board is suffering, or has during the voyage suffered, from plague. If the Health Officer is satisfied by such enquiry that no person on board is suffering, or during the voyage has suffered, from plague, or if the vessel has undergone since leaving Bombay a quarantine which is properly proved for not less than eight days at Colombo or some other British port, the Health Officer shall, by writing under his hand to be delivered to the Commander, permit such vessel to haul down the yellow flag and proceed upwards in the port and hold free communication with the shore and with vessels and boats in port. If the ship has not undergone eight days quarantine at Colombo or some other British port since leaving Bombay, the Health Officer shall direct the Commander to take the vessel to the quarantine anchorage and there to remain for a period of eight days from the date of arrival in the harbour. The Health Officer shall also direct the Commander to prohibit, during the period for which the vessel remains at the quarantine anchorage as aforesaid, all communication, except such as is hereinafter provided for between such vessel and the shore, or other vessels and boats in the harbour.
- IV.—If the Health Officer shall have reason to believe at the time when the vessel arrives in the harbour that any person on board is suffering, or during the voyage has suffered, from plague, he shall direct the Commander to take

the vessel to the quarantine anchorage as aforesaid and there to remain for a period of fifteen days from the day of arrival in the harbour; and shall further direct that during such fifteen days' intercourse between the said vessel and the shore or other vessels and boats in the harbour shall be prohibited as provided in Rule III.

V.—If during the period a vessel is at the quarantine anchorage aforesaid any case or cases of plague should occur on board, the said vessel shall remain in quarantine for a period of fifteen days from the date of the last case occurring, and be subject to all the prohibitions provided for in Rules III and IV.

VI.—When any vessel has been placed in quarantine as aforesaid, the Health Officer may direct the removal of so many of the passengers and crew as may not be suffering from illness and whose services may not be required on board the vessel, to such particular spots as may from time to time be selected by the Chief Commissioner as places of quarantine, there to remain for a period of eight days, or, if the vessel has been placed in quarantine for fifteen days, for a period of fifteen days. If a case of plague occurs among such passengers and crew during any such period, they shall remain in a place of quarantine for a period of fifteen days from the date of the occurrence of the last case of such illness.

VII.—Any mails or cargo which may be brought by any vessel so arriving shall be landed under such precautions as the Health Officer may deem necessary to prevent the spread of the disease.

VIII.—It will be the duty of the Conservator of the Port to facilitate the conveyance to all vessels in quarantine of such supplies of provisions, stores, and other articles as may be required by those on board. Such supplies will be placed on the boats of the vessels in quarantine to be subsequently removed by members of their crews.

IX.—All vessels arriving at Rangoon, which may have communicated with any vessel coming from Bombay, shall be subjected to the same quarantine as vessels arriving at Rangoon from Bombay, unless the communication was held after the vessel from Bombay was released from quarantine.

No. 808—3-Z-14, dated Rangoon, the 24th October 1896.

No. 40.

From—The Secretary to the Chief Commissioner, Burma, General,
Department,

To—The Secretary to the Government of India, Home Department.

In continuation of my letter No. 675—3 Z-14, dated the 20th October 1896, I am directed to submit for the information of the Gov-

* Not re-printed. The rules are republished in Home Department Notification No. 386, dated 3rd November 1896. ernment of India and for publication in the *Gazette of India* a copy of General Department Notification *

No. 191, dated 21st October 1896, in which a new rule is published, to be substituted for Rule III of the Quarantine Rules published in General Department Notification No. 190, dated the 20th October 1896.

2. I am to explain that after the publication of the Rules of the 20th October it occurred to the Chief Commissioner that Rule III did not fully express the wishes of the Government of India as communicated in your telegram No. 338, dated 18th October 1896. Under the orders in that telegram the granting of pratique at Rangoon to vessels which had not obtained pratique at Colombo, or some other British port, was to be at the discretion of the Health Officer.

This point is made clear in the new rule, which is herewith submitted.

Notification by the Government of India, Home Department, No. 386, dated Simla, the 3rd November 1896. No. 41.

The following rule for quarantine against plague which has been made by the Chief Commissioner of Burma in exercise of the power conferred by section 1, Act I of 1870, with the previous sanction of the Governor General in Council, is published for general information in substitution of Rule III of the rules for quarantine against plague published in Notification No. 369, dated 29th October 1896:—

III.—The pilot shall not take such vessel higher than Elephant Point, but shall anchor it there until the Health Officer of the Port has visited it and ascertained by enquiry from the commander whether any person on board is suffering, or has during the voyage suffered, from plague. If the Health Officer is satisfied by such enquiry that no person on board is suffering, or during the voyage has suffered, from plague, the Health Officer *may*, by writing under his hand to be delivered to the commander, permit such vessel to haul down the yellow flag and proceed upwards in the port and hold free communication with the shore and with vessels and boats in port. Provided that

if the vessel has undergone since leaving Bombay a quarantine, which is properly proved, for not less than eight days at Colombo, or some other British port, the Health Officer *shall* grant such permission as aforesaid.

If the vessel has not undergone eight days' quarantine at Colombo or some other British port since leaving Bombay, the Health Officer *may* direct the commander to take the vessel to the quarantine anchorage and there to remain for a period of eight days from the date of arrival in the harbour. In such case the Health Officer shall also direct the commander to prohibit, during the period for which the vessel remains at the quarantine anchorage as aforesaid, all communication, except such as is hereinafter provided for between such vessel and the shore, or other vessels and boats in the harbour.

No. 42. Notification by the Government of India, Home Department, No. 337, dated Simla, the 4th November 1896.

THE following rules for quarantine against plague, which have been made by the Madras Government in exercise of the power conferred by section 1, Act I of 1870, with the previous sanction of the Governor General in Council, are published for general information. Rules at Madras against Bombay.

The rules have effect from the 28th October 1896 as a temporary measure at the port of Madras:—

I.—The Commander of every vessel arriving from Bombay shall, before entering the port, indicate his arrival by signal.

II.—Such Commander shall not, except as hereinafter provided, allow any communication, either with the pilot boat, except orally or with the shore, or with any other vessel or boat in the port.

III.—Immediately on any such arrival being signalled, the Health (or other Medical) Officer of the port shall go alongside the vessel and ascertain by enquiry from the Commander whether any person on board is suffering, or has during the voyage suffered, from plague. If there is no case of plague on board, pratique may be granted at the discretion of the Health Officer whether the vessel carries a qualified Medical Officer or not. Pratique granted at Colombo will be recognised.

IV.—If the Health Officer shall have reason to believe at the time when the vessel arrives in the port that any person on board is suffering, or during the voyage has suffered, from plague, he shall direct the Commander to take the vessel to the quarantine anchorage, and there to remain for a period of fifteen days from the day of arrival in the port; and shall further direct that, during such fifteen days' intercourse between the said vessel and the shore or other vessels and boats in the harbour shall be prohibited.

V.—If, during the period a vessel is at the quarantine anchorage aforesaid, any case or cases of plague should occur on board, the said vessel shall remain in quarantine for a period of fifteen days from the date of the last case occurring, and be subject to all the prohibitions provided for in rule IV.

VI.—When any vessel has been placed in quarantine as aforesaid, the Health Officer may direct the removal of so many of the passengers and crew as may not be suffering from illness, and whose services may not be required on board the vessel, to such particular spots as may from time to time be selected as places of quarantine, there to remain for a period of fifteen days. If a case of plague occurs among such passengers and crew during any such period, they shall remain in a place of quarantine for a period of fifteen days from the date of the occurrence of the last case of such illness.

VII.—Any mails or cargo which may be brought by any vessel so arriving shall be landed under such precautions as the Health Officer may deem necessary to prevent the spread of the disease.

VIII.—It will be the duty of the Port Officer to facilitate the conveyance to all vessels in quarantine of such supplies of provisions, stores or other articles as may be required by those on board. Such supplies will be placed on the boats of the vessels in quarantine, to be subsequently removed by members of their crews.

IX.—All vessels arriving at the port which may have communicated with infected vessels coming from Bombay shall be subjected to the same quarantine as vessels arriving from Bombay with plague on board.

Telegram, dated 2nd January 1897.

No. 43.

From—Madras, Marine, Madras,
To—Home, Calcutta.

Your telegram 562-Sanitary. Quarantine against Karachi will be imposed at port of Madras with effect from the 6th instant. Copy of rules follows.

Telegram, dated 6th January 1897.

No. 44.

From—Madras, Marine, Madras,
To—Finance, Calcutta.

Sanction requested to issue of Quarantine rules against Bombay and Karachi for port of Tuticorin, similar to those sanctioned for Madras. Steamers occasionally arrive at Tuticorin from the infected ports named.

No. 45.

Telegram, No. 10, dated 8th January 1897.

From—Home, Calcutta,

To—Secretary to the Government of Madras, Marine Department.

Your telegram dated 6th. Governor General in Council sanctions, as a temporary measure, the issue of Quarantine rules against Bombay and Karachi for port of Tuticorin, similar to those sanctioned for Madras. Please wire date of Notification publishing rules, and send copy for publication in *Gazette of India*.

No. 46.

Telegram, dated the 11th January 1897.

From—Madras, Marine, Madras,

To—Home, Calcutta.

Your telegram 10-Sanitary. Quarantine against Bombay and Karachi will be imposed at port of Tuticorin with effect from the 13th instant. Copy of rules follows.

No. 47. Notification of the Government of India in the Home Department, No. 33, dated the 15th January 1897.

The following rules for quarantine against plague, which have been made by the Government of Madras in exercise of the power conferred by section 1, Act I of 1870, with the previous sanction of the Governor General in Council, are published for general information. Rules at Madras against Karachi.

The rules have effect from the 6th January 1897 as a temporary measure at the port of Madras:—

I.—The Commander of every vessel arriving from Karachi shall, before entering the port, indicate his arrival by signal.

II.—Such Commander shall not, except as hereinafter provided, allow any communication, either with the pilot boat, except orally, or with the shore, or with any other vessel or boat in the port.

III.—Immediately on any such arrival being signalled, the Health (or other Medical) Officer of the port shall go alongside the vessel and ascertain by inquiry from the Commander whether any person on board is suffering, or has during the voyage suffered, from plague. If there is no case of plague on board, pratique may be granted at the discretion of the Health Officer whether the vessel carries a qualified Medical Officer or not. Pratique granted at Colombo will be recognised.

IV.—If the Health Officer shall have reason to believe at the time when the vessel arrives in the port that any person on board is

suffering, or during the voyage has suffered, from plague, he shall direct the Commander to take the vessel to the quarantine anchorage, and there to remain for a period of fifteen days from the day of arrival in the port; and shall further direct that, during such fifteen days, intercourse between the said vessel and the shore or other vessels and boats in the harbour shall be prohibited.

V.—If, during the period a vessel is at the quarantine anchorage aforesaid, any case or cases of plague should occur on board, the said vessel shall remain in quarantine for a period of fifteen days from the date of the last case occurring, and be subject to all the prohibitions provided for in rule IV.

VI.—When any vessel has been placed in quarantine as aforesaid, the Health Officer may direct the removal of so many of the passengers and crew as may not be suffering from illness, and whose services may not be required on board the vessel, to such particular spots as may from time to time be selected as places of quarantine, there to remain for a period of fifteen days. If a case of plague occurs among such passengers and crew during any such period, they shall remain in a place of quarantine for a period of fifteen days from the date of the occurrence of the last case of such illness.

VII.—Any mails or cargo which may be brought by any vessel so arriving shall be landed under such precautions as the Health Officer may deem necessary to prevent the spread of the disease.

VIII.—It will be the duty of the Port Officer to facilitate the conveyance to all vessels in quarantine of such supplies of provisions, stores or other articles as may be required by those on board. Such supplies will be placed on the boats of the vessels in quarantine, to be subsequently removed by members of their crews.

IX.—All vessels arriving at the port which may have communicated with infected vessels coming from Karachi shall be subjected to the same quarantine as vessels arriving from Karachi with plague on board.

Notification of the Government of India in the Home Department, No. 24, dated the 12th January 1897. No. 48.

Rules at Calcutta
against Karachi.

The following rules for quarantine against plague, which have been made by the Government of Bengal in exercise of the power conferred by section 1, Act I of 1870, with the previous sanction of the Governor General in Council, are published for general information.

The rules have effect from the 6th January 1897 as a temporary measure at the port of Calcutta:—

I.—The Commander of every vessel, including buggalows or other native craft arriving from Karachi, shall on arrival at the Sandheads

hoist a yellow flag, and indicate by signal the port from which she has come, and shall keep such flag and signal flying until permitted to take it down as hereinafter provided. The pilot on going alongside a vessel from Karachi shall direct the flag prescribed above to be hoisted if it has not already been done.

II.—The Commander shall not, without first having obtained permis-

* *N.B.*—Pilotage is compulsory for all vessels over 100 tons in the Port of Calcutta.

sion as hereinafter provided, allow any communication except orally with the shore or any other vessel or boat, excepting only with the boat supplying the Pilots* from the Pilot Brig and in that case communication shall be limited to receiving on board the Pilot, his Leadsman, servant and baggage.

III.—If there is any case of sickness on board, and the Pilot has reason to believe that it is plague, he shall telegraph to the Port Officer from Saugor, and not proceed beyond Diamond Harbour without the permission of the Port Officer.

IV.—If the Pilot has no reason to believe that there is any one suffering from plague on board, he shall bring the vessel up the river to Matecabrooj, and shall anchor it there till the Health Officer has visited it.

V.—The Health Officer, as soon as he has received information of the vessel at Matecabrooj, shall visit it, and ascertain by enquiry from the Commander or the Medical Officer on board, or other sources of information, whether any person on board is suffering or has suffered from plague.

VI.—If the Health Officer is satisfied that no one is suffering from plague, or has suffered from plague since the vessel left Karachi, and if the vessel has been allowed pratique at any intermediate port including Colombo, he shall allow the passengers to land, but shall detain the vessel at Matecabrooj, till such measures have been taken for the disinfection of the mails and cargo and hold as he may consider necessary.

VII.—When he is satisfied that the necessary measures have been taken for the disinfection of the mails, cargo and hold, he shall allow the mails and cargo to be landed, and shall by writing under his hand, to be delivered to the Commander, permit such vessel to haul down the yellow flag, and to proceed upwards in the Port, and to hold free communication with the shore and with vessels and boats in Port.

VIII.—If the vessel has not been allowed pratique at Colombo or other intermediate ports, or if through her not carrying a qualified Medical Officer, or for other reasons, the Health Officer is not satisfied that no one on board has suffered during the voyage from plague, he

shall direct the Commander to take the vessel to the quarantine anchorage at Mateeabrooj or elsewhere duly appointed by the Port Officer, there to remain for a period of eight days from the date of arrival in harbour. The Health Officer shall also direct the Commander to prohibit, during the period for which the vessel remains at the quarantine anchorage as aforesaid, all communication, except such as is hereinafter provided for, between such vessel and the shore or other vessels or boats in the harbour.

IX.—If the Health Officer, as the result of the enquiry made under paragraph V above, shall have reason to believe, at the time when the vessel arrives in the harbour, that any person on board is suffering from plague, or if during the time the ship is in quarantine at Mateeabrooj under Rule VIII, any case of the disease breaks out, he shall direct the Commander to take the vessel to the quarantine anchorage at Diamond Harbour or elsewhere duly appointed by the Port Officer, there to remain for a period of fifteen days from the day of arrival in the harbour; and shall further direct that during such fifteen days, intercourse between the vessel detained under this Rule, or Rule III, and the shore or other vessels or boats in the harbour, shall be prohibited as provided in Rule II.

X.—If during the period a vessel is at the quarantine anchorage aforesaid, any case or cases of plague should occur on board, the said vessel shall remain in quarantine for a period of fifteen days from the date of the last case occurring, and be subject to all the prohibitions provided for in Rule IX.

XI.—When any vessel has been placed in quarantine as aforesaid, the Health Officer may direct the removal of so many of the passengers and crew as may not be suffering from illness, and whose services may not be required on board the vessel, to such particular spots as may from time to time be selected by the Port Officer as places of quarantine, there to remain for a period of eight days if under Rule VIII, or if the vessel has been placed in quarantine for fifteen days, for a period of fifteen days. If a case of plague occurs among such passengers and crew during any such period, they shall remain in a place of quarantine for a period of fifteen days from the date of the occurrence of the last case of such illness.

XII.—It will be the duty of the Port Officer to facilitate the conveyance to all vessels in quarantine of such supplies of provisions, stores and other articles as may be required by those on board. Such supplies will be placed on the boats of the vessels in quarantine, to be subsequently removed by members of their crews.

No. 49. Notification of the Government of India, in the Home Department, No. 28, dated the 14th January 1897.

The following rules for quarantine against plague which have been made by the Chief Commissioner of Burma in exercise of the power conferred by section 1, Act I of 1870, with the previous sanction of the Governor General in Council, are published for general information.

Rules at
Rangoon against
Karachi.

The rules have effect from the 1st January 1897 as a temporary measure at the port of Rangoon :—

- I.—The commander of every vessel, including junks or other native craft, arriving from Karachi, shall, on arrival at the pilot brig, hoist a yellow flag and indicate by signal the port from which she has come.
- II.—Such commander shall not, except as hereinafter provided, allow any communication either with the shore or with any other vessel or boat except with the boat supplying a pilot from the pilot brig, and in that case communication shall be limited to receiving on board the pilot, his servant, if any, and baggage.
- III.—The pilot shall not take such vessel higher than Elephant Point, but shall anchor it there until the Health Officer of the Port has visited it and ascertained by inquiry from the commander whether any person on board is suffering, or has during the voyage suffered, from plague. If the Health Officer is satisfied by such enquiry that no person on board is suffering, or during the voyage has suffered, from plague, the Health Officer may, by writing under his hand to be delivered to the commander, permit such vessel to haul down the yellow flag and proceed upwards in the port and hold free communication with the shore and with vessels and boats in port. Provided that, if the vessel has undergone since leaving Karachi a quarantine, which is properly proved, for not less than eight days at Colombo, or some other British port, the Health Officer shall grant such permission as aforesaid.

If the vessel has not undergone eight days' quarantine at Colombo or some other British port since leaving Karachi, the Health Officer may direct the commander to take the vessel to the quarantine anchorage and there to remain for a period of eight days from the date of arrival in the harbour. In such case the Health Officer shall also direct the commander to prohibit, during the period for which the vessel remains at the quarantine anchorage as aforesaid,

all communication, except such as is hereinafter provided for between such vessel and the shore, or other vessels and boats in the harbour.

IV.—If the Health Officer shall have reason to believe at the time when the vessel arrives in the harbour that any person on board is suffering, or during the voyage has suffered, from plague, he shall direct the commander to take the vessel to the quarantine anchorage as aforesaid, and there to remain for a period of fifteen days from the day of arrival in the harbour; and shall further direct that during such fifteen days intercourse between the said vessel and the shore or other vessels and boats in the harbour shall be prohibited as provided in Rule III.

V.—If during the period a vessel is at the quarantine anchorage aforesaid any case or cases of plague should occur on board, the said vessel shall remain in quarantine for a period of fifteen days from the date of the last case occurring, and be subject to all the prohibitions provided for in Rules III and IV.

VI.—When any vessel has been placed in quarantine as aforesaid, the Health Officer may direct the removal of so many of the passengers and crew as may not be suffering from illness, and whose services may not be required on board the vessel, to such particular spots as may from time to time be selected by the Chief Commissioner as places of quarantine, there to remain for a period of eight days, or if the vessel has been placed in quarantine for fifteen days, for a period of fifteen days. If a case of plague occurs among such passengers and crew during any such period, they shall remain in a place of quarantine for a period of fifteen days from the date of the occurrence of the last case of such illness.

VII.—Any mails or cargo which may be brought by any vessel so arriving shall be landed under such precautions as the Health Officer may deem necessary to prevent the spread of the disease.

VIII.—It will be the duty of the Conservator of the Port to facilitate the conveyance to all vessels in quarantine or such supplies of provisions, stores, and other articles as may be required by those on board. Such supplies will be placed on the boats of the vessels in quarantine to be subsequently removed by members of their crews.

IX.—All vessels arriving at Rangoon, which may have communicated with any vessel coming from Karachi, shall be subjected to the same quarantine as vessels arriving at Rangoon from Karachi unless the communication was held after the vessel from Karachi was released from quarantine.

QUARANTINE AT BOMBAY AND AT MINOR PORTS IN THE BOMBAY PRESIDENCY.

No. 50. Resolution of the Government of Bombay, No. 1975—1446-P, dated the 12th April 1897.

His Excellency the Governor in Council is pleased to make the following rules under Act III of 1897, and to publish them for general information :—

The Bombay Plague Committee is hereby authorized to appoint persons as plague authorities.

2. Such plague authorities are hereby empowered to medically inspect persons coming to Bombay Island by sea, by vessels, including native craft, which have touched at any port in India between Bhatkal and a line ten miles north of Karachi, and to detain or send for detention to such hospitals or other places as may be appointed by the Bombay Plague Committee for the purpose any persons whom they find or suspect to be suffering from plague.

3. The Master of every vessel, including buggalows and every kind of native craft arriving at the Port of Bombay from or having had communication with any place on the West Coast of India between Bhatkal and a line ten miles north of Karachi, on board of which there is, or has been during the voyage from which she is arriving or has last arrived, either among the passengers or crew, any case or suspicious case of bubonic plague, or if one or more deaths from any cause whatever shall have occurred on board on the said voyage, shall report the same at the earliest possible moment by signal to the Health Officer of the Port or through the Pilot or Water Police.

4. If the vessel is coming into port, the Master shall report such cases to the Pilot or other boarding officers at the earliest possible opportunity, or if she be not boarded, or is already at anchor within port limits, shall hoist a signal, which shall be, during the day, the flag R of the Commercial Code at the main, and during the night, at the same place, 3 lights, namely, red, white and red, and shall also verbally by an officer, or in writing, inform the officer in charge of the

Harbour Police. It shall be the duty of the Pilot or other officers to whom such report under Rule I is made to communicate the same without delay to the Health Officer of the Port.

5. Pending the arrival of the Health Officer of the Port, the Master shall anchor in the stream, and shall not permit the departure or landing of any of his crew or passengers until permitted to do so by the Health Officer of the Port.

6. The Masters of vessels to which rule 3 is applicable and the Masters of all vessels arriving from the ports or places inside the limits prescribed in rule 3 shall only permit the disembarkation of their crews and passengers between the hours of 6 A.M. and 6 P.M. and at such bandars or places as may be directed by the Health Officer of the Port.

Resolution of the Government of Bombay, No. 1211—710-P., dated the 6th March No. 51.
1897.

RESOLUTION.—Under Act III of 1897 the Governor in Council is pleased to prescribe the following rules and to authorise the Commissioners of Divisions to apply them, as a temporary measure, to any ports in the Bombay Presidency, reporting to Government from time to time the ports to which he has applied them:—

(1) Any vessel, except ferry boats (to which the rules of Government Resolution No. 883—351-P., dated 17th February 1897, apply) arriving at a port, shall anchor at a place fixed for such purpose, and the passengers and crew shall be examined before she is granted entry inwards and is allowed to land passengers or cargo.

(2) If any of the passengers or crew are found by the plague authority to be plague-stricken, the patient or patients shall be removed to the nearest segregated hospital, and the vessel shall be made to proceed to the place set apart for the anchorage of such vessel. Such vessels shall not communicate with the shore or land or receive cargo for the period of eight days. Provisions, etc., shall be sent to her under directions from the Port Officer or other officer appointed for the purpose by the Commissioner of the Division and shall be passed up the side in receptacles which shall not be received back.

(3) If no further plague case occurs on board during such period of eight days, she may receive pratique. If other cases occur, the course directed in Rule (2) shall be followed for a further period of eight days respectively. The vessel shall not receive pratique, or communicate with the shore or receive cargo or receive provisions otherwise than as directed in Rule (2) until after the lapse of eight days from the occurrence of the last case.

(4) If a vessel arrives with a case of simple fever on board, the above rules shall apply to her, but the detention shall be for a period of four days, subsequent to which, if no plague cases develop, she may be granted entry inwards.

(5) If a place on shore suitable for the segregated accommodation of passengers is available, the passengers from vessels treated as above may be removed to the same and placed there under observation instead of being detained on board.

(6) Cargo unloaded from vessels which have been quarantined on account of ascertained or suspected plague on board shall be removed by the consignee to a place set apart for the purpose and exposed to the sun for a period of three days, or in the case of cargo which may have become damp until such further period as may be necessary to thoroughly dry it, after which it may be taken possession of by the consignee.

(7) Bedding, rags, etc., may not be landed from vessels aforesaid and if landed shall be destroyed.

(8) Piece-goods and other articles liable to carry infection brought by vessels aforesaid shall be fumigated or otherwise disinfected before being carried away by the consignee.

(9) Any grain brought to the port and landed from any vessel and found by a Magistrate to be unfit for human consumption shall be destroyed.

(10) Any port may be declared to be an infected port by the District Magistrate. Vessels arriving from such ports, even if no case of plague has occurred on board, shall not be granted entry inwards unless or until eight clear days have elapsed from the date of her departure from the aforesaid port. If the vessel arrives before the expiry of such eight days, she shall remain at the anchorage fixed for such vessels until such eight days have elapsed, subject to the conditions laid down in Rules 2, 5, and 6, after which, if no plague case is discovered on board, she shall obtain pratique. If plague is developed or has been developed before her arrival, all the above quarantine rules shall apply to her, her crew, passengers and cargo.

MODIFICATION OF THE ADEN QUARANTINE RULES.

No. 52.

Telegram, dated Bombay, the 31st January 1897.

From—The Secretary to the Government of Bombay, General Department,

To—The Secretary to the Government of India, Home Department.

Resident, Aden, represents inadequacy of quarantine measure for Aden as voyages from Bombay and Karachi are short, and recommends

quarantine for at least ten days on all arrivals from these two ports. Government propose quarantine for the period by which the number of days spent on voyage falls short of ten days.

Telegram No. 287, dated Calcutta, the 2nd February 1897.

No. 53.

From—The Secretary to the Government of India, Home Department,

To—The Secretary to the Government of Bombay, General Department.

Your telegram dated 31st. Quarantine at Aden. Governor General in Council sanctions under section 1, Act I, 1870, quarantine against arrivals from Bombay and Karachi for the period by which the number of days spent on the voyage falls short of ten days. Please issue notifications modifying existing rules and inform Government of India of date on which notifications issue and send copies for publication in *Gazette of India*.

Telegram No. 379, dated Calcutta, the 7th February 1897.

No. 54.

From—The Secretary to the Government of India, Home Department,

To—The Secretary to the Government of Bombay, General Department.

Your letter 515, dated 30th January. Quarantine Rules, Aden. Please wire if Government of Bombay consider that an alteration of rule 3 to require medical inspection of all vessels irrespective of time of arrival and deputation of another medical officer to Aden to assist Port Surgeon will meet circumstances of case. If so, Government of India will arrange to send officer.

Telegram, dated Bombay, the 8th February 1897.

No. 55.

From—The Secretary to the Government of Bombay, General Department,

To—The Secretary to the Government of India, Home Department.

Your telegram 379. Aden Quarantine Rules. Rule should be altered to make inspection of all ships necessary irrespective of time of arrival, but it is not thought necessary either to appoint another Port Surgeon or to compel the present one to inspect at night. Except in case of mail steamers, vessels from Bombay and Karachi should be compelled to wait till morning for their inspection.

Telegram, No. 412, dated the 10th February 1897.

No. 56.

From—The Secretary to the Government of India, Home Department,

To—The Secretary to the Government of Bombay, General Department.

Your telegram of 8th. Aden Quarantine Rules. Government of India apprehensive lest prohibition at Aden of medical inspection by

night except in the case of mail steamers may cause inconvenience to mercantile community. They would therefore be obliged if it could be ascertained from Chamber of Commerce whether it would be inconvenient or not and are disposed to think that if inconvenience would result, it would be desirable to prevent it by appointing second medical officer.

No. 57.

Telegram, dated Bombay, the 18th February 1897.

From—The Secretary to the Government of Bombay, General Department,

To—The Secretary to the Government of India, Home Department.

Your telegram 412. Chamber of Commerce consider prohibition of Aden medical inspecting by night inconvenient and that it is desirable to prevent such inconvenience by appointing second medical officer.

No. 58.

Telegram No. 639, dated Calcutta, the 20th February 1897.

From—The Secretary to the Government of India, Home Department,

To—The Secretary to the Government of Bombay, General Department.

Your telegram dated 18th. Please issue modifications rule 3 of quarantine rules requiring medical inspection of all vessels irrespective of time of arrival and depute medical officer to assist Port Surgeon, Aden. Please telegraph date of issue of modified rule and send copy for publication in *Gazette of India*.

No. 59.

Telegram, dated 23rd February 1897.

From—The Secretary to the Government of Bombay, General Department,

To—Home, Calcutta.

Your telegram No. 639 of 20th. Notification modifying rule III issued to-day.

No. 60.

No. 1055, dated Bombay Castle, the 26th February 1897.

From—J. D. C. ATKINS, Esq., I.C.S., Secretary to the Government of Bombay, General Department,

To—The Secretary to the Government of India, Home Department.

In continuation of my telegram of the 23rd instant, I am directed to forward herewith copy of the notification issued by this Government modifying rule III of the rules for quarantine at Aden against arrivals from Bombay and Karachi.

Notification No. 823, dated Calcutta, the 5th March 1897.

No. 61.

In modification of the rules for quarantine against plague, which were published in Home Department No. 300, dated the 12th October 1896. notifications marginally noted, the Government of Bombay have with the previous sanction of the Governor General in Council, altered the first paragraph of rule III of the rules published therein as follows:—

" III.—On such arrivals being signalled the Health Officer of the Port or Port Surgeon or other officer appointed for the purpose shall, as soon as possible, go alongside the vessel and ascertain by enquiry from the Commander whether any person is suffering, or has during the voyage suffered from plague; and if the ship carries a duly qualified medical officer, and if the Port Surgeon or Health Officer of the Port or other officer appointed for the purpose is satisfied after a medical inspection that no person on board is suffering, or during the voyage has suffered, from plague, quarantine shall be dispensed with and pratique granted."

Telegram, dated Bombay, the 10th February 1897.

No. 62.

From—The Secretary to the Government of Bombay, General Department,
To—The Secretary to the Government of India, Home Department.

It is doubtful how the published Aden quarantine rules should be formally amended in order to give effect to the provision in our notification* 583 of 3rd instant. A letter on the subject will shortly issue in meantime; do India require any change beyond that in our notification of third instant?

Telegram No. 440, dated Calcutta, the 12th February 1897.

No. 63.

From—The Secretary to the Government of India, Home Department,
To—The Secretary to the Government of Bombay, General Department.

Your telegram dated 10th. Quarantine, Regulations Aden. Orders issued in Bombay Government Notification 583, of third, will suffice pending consideration of letter referred to in your telegram.

No. 441, dated Calcutta, the 12th February 1897.

No. 64.

NOTIFICATION.—By the Government of India, Home Department.

It is notified for general information that the Government of Bombay have with the previous sanction of the Governor General in Council declared that quarantine will be imposed on persons landing at Aden up to ten days from date of leaving Bombay or Karachi.

* The substance of this notification is contained in Government of India Notification No. 441, dated the 12th February 1897, printed on this page.

No. 65.

No. 777, dated Bombay Castle, the 12th February 1897.

From—J. D. C. ATKINS, Esq., Secretary to the Government of Bombay,
General Department,

To—The Secretary to the Government of India, Home Department.

I am directed to forward herewith copies of the papers mentioned

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| { <ol style="list-style-type: none"> 1. Standard quarantine rules. 2. Standard quarantine rules with modifications of rule III (in ink). 3. Report by the Remembrancer of Legal Affairs. 4. Report by the Advocate General. | in the margin and to solicit instructions as to whether any, and if so what, changes should be made in the standard quarantine rules as sanctioned for Aden, with a view to providing for the change introduced by Notifi- |
|---|--|

cation No. 583, dated 3rd February 1897.

2. On the one hand it is desirable to make quarantine rigorous with a view to preventing the importation of plague into Aden and also to preventing quarantine against Aden being imposed by foreign countries. On the other hand it is difficult and perhaps undesirable to interfere with ships using Aden as a port of call unless they land or tranship passengers at Aden or desire to have any intercourse with the shore.

3. If in Rule III, paragraph (1), of the standard rules the words "quarantine shall be dispensed with and pratique granted" are retained, certain difficulties arise. In the first place the new rule, which must be introduced to provide against the landing of passengers, is *pro tanto* a contradiction of this rule. In the next place it is not intended that quarantine of any kind shall be dispensed with or that any kind of pratique shall be granted, except in the event of a vessel having left Bombay ten days previously: and hence the retention of these words, notwithstanding the modification proposed by the Remembrancer of Legal Affairs, might in practice give rise to misconception and lead foreign countries to think that the quarantine arrangements at Aden were less rigorous than is intended and than is actually the case.

4. If on the other hand rule III, paragraph (1), is modified as shown in ink in draft 2, special provision must be made for ships using Aden as a mere port of call. It is not intended to detain these ships against the wishes of their Commanders, but it is desirable to provide, until ten days have elapsed since their departure from Bombay, that they shall have no intercourse with the shore and no intercourse with other ships except at places appointed for the purpose and subject to regulations for placing those ships in quarantine.

5. Rule IV appears to require modification for the purpose of providing for the cases of ships using Aden as merely a port of call

and either desiring not to land passengers or to land them in quarantine: and also for the case of ships, whether using Aden merely as a port of call or not, which desire to tranship passengers to other ships in quarantine.

6. I am to invite attention to the recommendation of the Advocate General that the earliest opportunity should be taken of redrafting the rules.

Report by the Remembrancer of Legal Affairs, dated 5th February 1897.

I have found it a difficult task to say how the proposed modifications in these rules should be worded.

The object in itself is simple, *viz.*, as stated in the *Gazette Extraordinary* of the 3rd instant, to impose quarantine "on persons *landing at Aden* up to 10 days from date of leaving Bombay or Karachi." Cf. telegram of Government of India, dated 2nd instant.

2. The first point is with regard to Rule III. As first altered (in ink) the rule would impose quarantine on all vessels from Bombay (or Karachi) coming to Aden, whether they landed persons at Aden or not. This would obviously go beyond the original intention of the amendment and would cause inconvenience.

3. There seem to be two ways of meeting the difficulty, either (a) to make rule of detention apply to all vessels (from Bombay or Karachi) adding a proviso in favour of vessels using Aden only as a port of call, or (b) to leave the 1st part of Rule III unaltered (allowing vessels showing a clean bill of health to go on their way) adding a proviso regarding the detention of all persons *landing at Aden*.

4. Both modes have been suggested. The latter would seem better to meet the original intention and to be the less cumbrous in form. Both modes, however, would leave Rule IV untouched, and this rule seems to require the detention of *all* vessels with plague on board,

* It is doubtful, however, whether this rule is meant to apply (or is practically worked as applying) to vessels which do not wish to remain at Aden.

whether they wish to land passengers at Aden or not.* Moreover as soon as we begin to modify the wording of the rules, various practical difficulties seem to arise regarding the way in which vessels only calling at Aden (to land or tranship passengers) are to be distinguished from vessels staying there for a longer period.

5. After much consideration and after looking to the actual sanction contained in the telegram of the Government of India I would venture to suggest the following course.

The rules may be left as they originally were with the following addition :—

"X.—Notwithstanding anything contained in the above-mentioned rules, no persons wishing to be landed at Aden, Perim or the Somali Coast from vessels coming from Bombay (or Karachi) shall be permitted to be so landed except from the quarantine anchorage and at such particular spots as may be selected by the Resident as places of quarantine under Rule VI above. Such persons (if landed from vessel coming under Rule III above) shall remain at such places until a period of ten days shall have elapsed from the time of their departure from Bombay (or Karachi). If landed from a vessel coming under Rule IV above, such persons shall remain at such places for a period of 15 days from the day of arrival in the harbour. If a case of plague occurs amongst any such persons during such periods, they shall remain in a place of quarantine for a period of 15 days from the date of the occurrence of the last case of such illness."

No. 10 of 1897.

Opinion of the Advocate General, Bombay.

I think the course suggested by the Legal Remembrancer will carry out the directions of the Government of India, and if the rules are not redrafted almost entirely, it is the best course to adopt. I would suggest that the rule proposed by the Legal Remembrancer be adopted for the present, but that the earliest opportunity be taken of redrafting the rules.

As regards the wording of the proposed new rule, I would suggest that it should run "notwithstanding any thing contained in the above-mentioned rules, no persons from vessels coming from Bombay or Karachi shall land at Aden, Perim or the Somali Coast except from the quarantine anchorage *et seq.*," as in the Legal Remembrancer's draft.

No. 66.

Telegram No. 683, dated Calcutta, the 22nd February 1897.

From—The Secretary to the Government of India, Home Department,

To—The Secretary to the Government of Bombay, General Department.

Your letter 777, dated 12th. Quarantine at Aden. Government of India do not clearly understand why proposal of Legal Remembrancer to leave rules as they originally were with addition of rule to given at end of his report does not meet wishes of Bombay Government. Please telegraph reply.

Telegram, dated Bombay, the 25th February 1897.

No. 67.

From—The Secretary to the Government of Bombay, General Department,

To—The Secretary to the Government of India, Home Department.

Your telegram 683 of 22nd. Aden Quarantine Rules. If Government, India, are satisfied, this Government is satisfied. But desire to draw attention to Private Secretary to Governor's telegram of 17th and to fact that it is not clear under present rules whether a vessel even with plague on board may escape quarantine if desiring to continue her voyage; for example the pilgrim ship *Pekin*, which had had plague cases, escaped quarantine.

Telegram No. 839, dated Calcutta, the 9th March 1897.

No. 68.

From—The Secretary to the Government of India, Home Department,

To—The Secretary to the Government of Bombay, General Department.

Your telegram dated 25th February. Aden Quarantine Rules. My telegram 824, dated 5th March, states that Government of India do not consider that there should be compulsory inspection or detention at Aden. There would therefore seem now to be no objection to modify Aden Quarantine Rules in manner suggested by Legal Remembrancer to give effect to orders issued in Bombay Government Notification 583, dated 3rd February.

Telegram, dated the 13th March 1897.

No. 69.

From—The Secretary to the Government of Bombay, General Department,

To—The Secretary to the Government of India, Home Department.

Please see Aden Quarantine Notifications 987, of 23rd ultimo, and 583, dated 3rd idem. Resident, Aden, wires: *Begins*. Your telegram of yesterday. Can Port Surgeon go on board a ship in quarantine without being compromised? Modified rule three would seem to conflict with Notification 583, which enjoins ten days' quarantine against infected ports to which both notifications alone refer. Inspection of ships seems quite unnecessary so long as quarantine exists.—*Ends*. Port Health Officers MacCartie and Crimmin here agree that if Port Surgeon boards a ship in quarantine, he is compromised; we have therefore wired Aden pending further orders not to allow Port Surgeon to board any ships till ten days of quarantine counting from date of leaving Bombay and Karachi have expired. Orders solicited. The rules will require redrafting, and it is proposed to act on present rules as modified and partly superseded by Notification 583 till new rules can be drafted and submitted by Resident.

No. 70.

Telegram No. 1007, dated Calcutta, the 18th March 1897.

From—The Secretary to the Government of India, Home Department,

To—The Secretary to the Government of Bombay, General Department.

Your telegram dated 13th. Aden Quarantine Rules. Government of India confirm orders of Bombay Government that Port Surgeon should not be allowed to board any ships till ten days of quarantine counting from date of leaving Bombay and Karachi have expired. Government of India also accept proposal to act on present rules as modified and partly superseded by Notification 583 till new rules can be drafted and submitted by Resident. Please expedite submission of these.

No. 71.

Telegram No. 1249, dated Calcutta, the 10th April 1897.

From—The Secretary to the Government of India, Home Department,

To—The Secretary to the Government of Bombay, General Department.

When may Government of India expect reply to telegram No. 1007, dated 18th March, regarding Aden Quarantine Rules?

No. 72.

Telegram No. 1362, dated Simla, the 25th April 1897.

From—The Secretary to the Government of India, Home Department,

To—The Secretary to the Government of Bombay, General Department.

Correspondence ending with my telegram 1249, dated 10th. Government of India will be glad to receive as soon as possible reply to my telegram 1007, dated 18th March, about Aden Quarantine Rules.

No. 73.

Telegram, dated the 30th April 1897.

From—The Secretary to the Government of Bombay, General Department,

To—The Secretary to the Government of India, Home Department.

Your telegram 1362-Sanitary, dated 25th April. Aden Quarantine. The Resident has submitted proposed rules which, however, require some revision, no practical difficulty being experienced at Aden. Matter is not apparently very pressing.

Rules for the inspection of outward-bound vessels issued during the present epidemic before the Venice Convention.

BOMBAY.

No. 74.

Telegram No. 61-P., dated the 27th February 1897.

From—The Secretary to the Government of Bombay, General Department,

To—The Secretary to the Government of India, Home Department.

It is considered urgently necessary to medically inspect persons leaving Bombay by sea, a complete scheme has been prepared, legal

28th February 1897.

From—The Secretary to the Government
To—The Secretary to the Government

Your telegram 61-P., regarding ruley can be acted on. Bill was and bills of health. Government of Council and will be passed next entirely within Act I of 1870, but the such rules and they can then today introduced in Legislative Council rules required for Karachi? Thursday which gives power to make all of powers conferred by sec- be formally issued. Are not similar to in your letter 41 over P. of Bill also provides for extension generally and sanction generally in Bombay tion 434 of Bombay City Act referred to in your letter of 25th, so special legislation to extend to Presidency will be necessary.

No. 76.

No. 656-165-P., dated Bombay Castle, the 6th February 1897.

NOTIFICATION.—By the Government of Bombay, General Department.

The following rules have been prescribed by His Excellency the Governor in Council in accordance with the Epidemic Diseases Act of 1897:—

1. No vessel shall leave the Port of Bombay until she has been inspected by the Health Officer of the Port and the Master or person in charge of such vessel has obtained a Bill of Health or certificate from such officer that the Master or person in charge, officers, crew and passengers (if any) of such vessel are free from any dangerous epidemic disease.
2. Should the Health Officer of the Port be of opinion that any person on board of any vessel so inspected is suffering from a dangerous epidemic disease he shall refuse to give a Bill of Health or certificate as aforesaid unless and until such person is removed from the vessel.
3. After the Master or person in charge of the vessel has obtained any Bill of Health or certificate under the provisions of these rules, no person or cargo shall be admitted or taken on board such vessel before she leaves the Port of Bombay unless such vessel is again inspected by the Health Officer of the Port and another Bill of Health or certificate obtained from such officer by the Master or the person in charge of such vessel.
4. No Port Clearance shall be delivered to any vessel unless and until the Master or person in charge thereof shall produce the Bill of Health or certificate so to be obtained as aforesaid, and it shall be the duty of Customs officers to refuse delivery of the Port Clearance without the production of such Bill of Health or certificate.
5. The Government of Bombay may appoint any person or persons by name or by virtue of office Health Officer or Health Officers of the Port for the purpose of these rules as regards any class or classes of vessels and may cancel any such appointment.
6. Disobedience to any of the above Rules Nos. 1, 2, 3 and 4 will subject the offender and all persons aiding or abetting him to a prosecution under section 271 of the Indian Penal Code.

No. 820-322-P., dated Bombay Castle, the 5th February 1897.

NOTIFICATION.—By the Government of Bombay, General Department

No. 77.

The following rules have been prescribed by His Excellency the Governor in Council in accordance with the Epidemic Diseases Act of 1897:—

1. No vessel shall leave the Port of Karachi until she has been inspected by the Health Officer of the Port and the master or person in charge of such vessel has obtained a Bill of Health or certificate from such officer that the master or person in charge, officers, crew and passengers (if any) of such vessel are free from any dangerous epidemic disease.
2. Should the Health Officer of the Port be of opinion that any person on board of any vessel so inspected is suffering from a dangerous epidemic disease, he shall refuse to give a Bill of Health or certificate as aforesaid unless and until such person is removed from the vessel.
3. After the master or person in charge of the vessel has obtained any Bill of Health or certificate under the provisions of these rules no person or cargo shall be admitted or taken on board such vessel before she leaves the Port of Karachi unless such vessel is again inspected by the Health Officer of the Port and another Bill of Health or certificate obtained from such officer by the master or person in charge of such vessel.
4. No Port Clearance shall be delivered to any vessel unless and until the master or person in charge thereof shall produce the Bill of Health or certificate so to be obtained as aforesaid, and it shall be the duty of Customs officers to refuse delivery of the Port Clearance without the production of such Bill of Health or certificate.
5. All steamers and square-rigged vessels will be inspected by the Health Officer before leaving the wharves or moorings, and all coasting craft shall anchor between and to the west of No. 1 mooring and deep-water point for the purpose of being medically inspected by the Health Officer of the Port on the eve of their departure.
5. Vessels not leaving port within 24 hours after receiving pratique may not leave without re-inspection. The date and hour of his inspection will be noted in the Bill of Health by the Health Officer.
7. The medical inspection of vessels and passengers shall be carried out between sunrise and sunset.

8. Disobedience to any of the above Rules Nos. 1 to 6, will subject the offender and all persons aiding or abetting him to a prosecution under the Indian Penal Code.

BENGAL.

No. 78. Notification by the Government of Bengal, No. 3, dated the 10th February 1897.

In exercise of the powers conferred by section 2 of the Epidemic Diseases Act, 1897, and by the Notification of the Government of India in the Home Department, No. 202, dated the 4th instant, the Lieutenant-Governor of Bengal is pleased to prescribe the following regulations for the inspection of ships or vessels leaving the Port of Calcutta, and the detention thereof, or of persons intending to sail therein :—

1. Before leaving the port all vessels, including buggalows and other native crafts, shall be inspected by the Port Health Officer, who, if he finds no reason for suspecting that any person on board is infected with bubonic plague, shall deliver to the master a bill of health in the form annexed.

2. If any person on board is suffering from, or is suspected by the Health Officer to be infected with, bubonic plague, the Health Officer shall order the vessel to be detained for not less than seven days at the quarantine anchorage appointed by the Port Officer and to be thoroughly disinfected before departure.

3. The Health Officer shall at the same time cause any person suffering from the plague to be removed to a plague hospital, and any person suspected of being infected to be kept under observation for not less than seven days in the place appointed for this purpose by the Medical Board.

4. If during the period of detention no fresh case occurs on the vessel and no person on board shows suspicious symptoms, the vessel may be permitted to proceed; and if during the same period the persons detained under observation are proved not to be suffering from plague or any other infectious disease, they may continue their voyage.

5. No pilgrim or other native passenger shall leave the Port of Calcutta for any port in the Red Sea unless he has been under continuous medical observation for at least seven days in a place appointed by the Lieutenant-Governor for that purpose, and is pronounced free from infection before departure by the medical officer in charge of such place.

Bill of Health.

This is to certify that the ship (*or* steamer) sailing under the flag and under the command of Captain of

* Including officers and able-bodied tons bound for with a seamen, crew of persons* and passengers and laden with a cargo of is at the time of leaving this port in a satisfactory sanitary condition, and that no case of infectious disease dangerous to life exists among her officers, passengers, or crew, all of whom have been inspected by me.

It is further certified that the town and port of Calcutta are at present† *free from* epidemic cholera, plague, yellow fever, and all other dangerous epidemic diseases.

No. 226.T.—M., dated Darjeeling, the 28th May 1897.

No. 79.

From—H. H. RISLEY, Esq., C.I.E., Secretary to the Government of Bengal,
To—The Secretary to the Government of India, Home Department.

Under orders contained in the Home Department letter No. 395, dated the 9th February 1897, I am directed to submit, for the information of the Government of India, a copy of revised Plague Notification No. 3, dated the 25th May 1897, prescribing rules for inspection of vessels leaving the ports in this Province for non-Indian ports.

Notification by the Government of Bengal, No. 3, dated Darjeeling, the 25th May 1897.

In exercise of the powers conferred by section 2 of the Epidemic Diseases Act, 1897, and by the Notification of the Government of India in the Home Department, No. 302, dated the 4th February, and in supersession of Plague Notification No. 3, dated the 10th February 1897, which is hereby cancelled, the Lieutenant-Governor of Bengal is pleased to declare that all vessels and persons leaving the under-mentioned ports in Bengal shall be subjected to the rules in the Regulation hereinafter set forth:—

Calcutta.	Balasore.	False Point.
Chittagong.	Chandbally.	Pari.

Rules.

1. No person shall be permitted to embark on board a vessel, buggalow or native craft, within any of the above mentioned ports bound for any port out of India, who has within the preceding ten days resided in or visited a part of India believed by the Health Officer of the Port to be infected by the plague.

2. No vessel shall leave any such port for any port out of India until she has been inspected by the Health Officer of the Port, and the master or person in charge of such vessel has obtained from such officer a bill of health in the form given below, stating that the master or person in charge, officers, crew and passengers (if any) of such vessel are free from the bubonic plague.

3. Should the Health Officer of the Port be of opinion that any person on board of any vessel so inspected is suffering from the bubonic plague or is not free from the infection of the plague, he shall refuse to give a bill of health as aforesaid unless and until such person and his relations and non-medical attendants are removed from the vessel to a plague hospital or place of observation appointed by Government, and such parts of the vessel as have been frequented by such person or his relations and attendants shall have been disinfected to the satisfaction of the Health Officer. If the vessel has no medical officer on board, the Health Officer shall order her to be detained for not less than ten days at the quarantine anchorage appointed by the Port Officer, and to be thoroughly disinfected before departure. If during the period of detention no fresh case occurs on the vessel and no person on board shows suspicious symptoms, the vessel may be permitted to proceed, and if during the same period the persons detained under observation are proved not to be suffering from plague or any other infectious disease they may continue their voyage.

4. After the master or person in charge of the vessel has obtained a bill of health or certificate under the provisions of these rules, no person or cargo shall be admitted or taken on board such vessel before she leaves the port unless such vessel is again inspected by the Health Officer of the Port and another bill of health obtained from such officer by the master or person in charge of such vessel.

5. No port clearance shall be delivered to any vessel bound from any such port to any port out of India unless and until the master or person in charge thereof shall produce the bill of health so to be obtained as aforesaid; and it shall be the duty of Customs officers to refuse delivery of the port clearance without the production of such bill of health.

6. The duties of Health Officers under these rules shall be discharged by the medical officers named below, or by such other medical officer as may from time to time be appointed for such purpose by the Lieutenant-Governor:—

Health Officers.

Calcutta ...	... Port Health Officer.
Chittagong	... Civil Surgeon.

Health Officers.

Narainganj	...	Civil Hospital Assistant, Narainganj.
Balasore	...	Civil Surgeon.
Chandbally	...	Civil Hospital Assistant, Chandbally.
False Point	...	Ditto, Jambu.
Puri	...	Civil Surgeon.

Bill of Health.

This is to certify that the ship (or steamer) sailing under the flag and under the command of as master, of tons bound for with a crew of persons* and passengers and laden with a cargo of is at the time of leaving this port in a satisfactory sanitary condition, and that no case of bubonic plague exists among her officers, passengers, or crew, all of whom have been inspected by me.

It is further certified that the town and port of are at present† free from plague.

* Including officers and able-bodied seamen.

† Or as the case may be.

No. 355-T.-M., dated Darjeeling, the 12th June 1897.

No. 80.

From—H. H. RISLEY, Esq., C.I.E., Secretary to the Government of Bengal, Municipal Department, Medical Branch,

To—The Secretary to the Government of India, Home Department.

I am directed to submit for the information of the Government of India a copy of a letter from the Bengal Chamber of Commerce and of its enclosure representing the inconvenience caused to vessels by rule 4 of the revised Plague Notification No. 3, dated the 25th May 1897 (a copy of which was communicated to the Government of India with my letter No. 226-T.-M., dated No. 341, dated 11th June 1897, 28th idem) together with a copy of the orders passed thereon by the Lieutenant-Governor.

No. 341-T.-M., dated Darjeeling, the 11th June 1897.

From—H. H. RISLEY, Esq., C.I.E., Secretary to the Government of Bengal, Municipal Department, Medical Branch,

To—The Secretary to the Bengal Chamber of Commerce.

I am directed to acknowledge the receipt of your letter No. 855, dated the 1st June 1897, submitting for the consideration of Government a copy of a representation from the Committee of the Liners' Conference, in which they point out that if the provisions of rule 4 of the revised Plague Notification No. 3, dated the 25th May 1897, are

enforced, vessels which have finished their loading and are otherwise ready to start will still be liable to a further detention of not less than 24 hours by having to wait for the port clearance until the Bill of Health has been granted by the Port Health Officer. The Chamber suggest that the provisions of this rule might be carried out with a minimum of inconvenience to the vessels if the loading of cargo (which is not inspected by the Health Officer) were allowed to be proceeded with until the last moment, and if the Health Officer were permitted to give the ordinary Bill of Health to enable the vessel to obtain port clearance and leave, provided that when passengers are carried, she be accompanied down the river by one of the assistants of the Health Officer, who shall inspect the ship and passengers and grant a final Bill of Health on board.

2. In reply I am to say that in order to meet the wishes of the Chamber as far as possible, Surgeon-Captain Jay Gould, at present an Inspecting Officer under the Epidemic Diseases Act at Khana Junction, will be appointed an additional Port Health Officer for the purpose of conducting the inspection of vessels under the Regulation, and Dr. Banks, the present Superintendent of Emigration, will be employed on the same work in addition to his own duties. The Port Health Officer will be instructed to arrange for the distribution of the work between himself and the additional Health Officers in such manner as may be convenient with reference to the departure of vessels.

3. The Collector of Customs has been authorised to grant port clearance under section 66 of the Sea Customs Act on a guarantee being given by the agents of a vessel that within 48 hours of departure they will produce a duplicate copy of the Bill of Health as finally granted, signed by the Port Health Officer or an additional Port Health Officer, and that if for any reason the Health Officer should refuse to grant the Bill of Health, they will bring the vessel back to her moorings.

4. As regards cargo I am to explain that although, as the Chamber observe, the Port Health Officer does not inspect the process of loading closely, the general nature of the cargo is stated in the Bill of Health, and in view of the apprehensions of foreign nations in respect of certain kinds of goods, it would not be advisable to omit all reference to cargo.

5. For the reasons stated above, the Lieutenant-Governor does not consider it necessary to amend the Regulation, which corresponds closely to that in force in Bombay and Madras; but I am to express the hope that the appointment of additional Port Health Officers will remove the inconveniences complained of.

No. 855, dated Calcutta, the 1st June 1897.

From—W. PARSONS, Esq., Secretary, Bengal Chamber of Commerce,
To—The HON'BLE H. H. RISLEY, I.C.S., C.I.E., Secretary to the Government of Bengal, Financial Department.

On the 28th May I had the honour to address to you the following telegram :—*Telegram begins.* Representations have been made to the Committee that clause 4 of Plague Notification Number 3 of 25th May will entail great inconvenience and delay to steamers sailing for foreign ports and also cause great inconvenience to passengers who would have to embark the day previous to vessel's sailing. Committee trust His Honour will agree to hold working of clause 4 in abeyance until full representations have been made to Government.—*Telegram ends.* And have now to acknowledge receipt of your message of 30th ultimo in reply, reading as follows :—*Telegram begins.* Lieutenant-Governor cannot suspend rule 4 of revised Plague Notification 3 which is in force both in Madras and Bombay, but will consider any representations submitted.—*Telegram ends.*

My telegram was despatched in consequence of an urgent representation made by the Committee of the Liners' Conference (which comprises all the regular lines of vessels sailing from this port) pointing out that under rule 4 of Plague Notification No. 3 of the 25th May no cargo or passengers could be taken on board a vessel after the Bill of Health had been granted, and that if this rule were strictly enforced, it would mean, ordinarily, an extra delay of 24 hours to the vessel; possibly in the event of a vessel finishing her loading on Saturday, a delay of two days and occasionally if the vessel missed a tide by waiting for the bill of health and the port clearance, a delay of three, four or even five days according to the state of the river.

2. The Committee of the Chamber and the Committee of the Liners' Conference have no desire whatever to ask for a modification of any regulations which appear to Government absolutely essential to prevent the spread of plague, but, as pointed out in the letter received from the Secretary of the Liners' Conference, a copy of which I enclose, and which contains a very clear statement of the position as it appears from the point of view of steamers' agents, it was thought that possibly, when the present notification was issued, the full consequences in the way of pecuniary loss and personal inconvenience were hardly realised, and that a way might be found of altering the rule so as to minimise this loss and inconvenience without in any way increasing the risk of the spread of plague. The Committee note from your telegram that the same notification is now in force both in Madras and Bombay; but they would point out that although a certain amount of inconvenience must also be experienced in those

ports, the departure of vessels therefrom is not surrounded by the same difficulties as attach to a port like Calcutta, one hundred miles from the mouth of a dangerous tidal river.

3. The Committee would venture to suggest for the consideration of Government that the provisions of rule 4 might be carried out with a minimum of inconvenience to vessels if the loading of cargo (which is not inspected by the Health Officer) were allowed to be proceeded with as formerly until the last moment, and if the Health Officer were permitted to give the ordinary bill of health to enable the vessel to obtain port clearance and leave, provided that (if passengers were carried) she be accompanied down the river to any point which Government may indicate, either Garden Reach, Budge Budge, or, if necessary, Diamond Harbour by one of the Health Officer's assistants, who shall, as convenient, inspect the ship and passengers and grant a final bill of health on board. This course, it appears to the Committee, would, to a great extent, meet the difficulties which have now been submitted to Government, and I am instructed to add that the suggestion now made has the approval of Mr. Baker, the Collector of Customs, and of Dr. Forsyth, the Health Officer of the Port.

4. The Committee in conclusion would venture to place before Government the personal experience of the Hon'ble Mr. C. Turner, Vice-President of the Chamber, who recently embarked at Madras on board the S.S. *Goorkha*. Mr. Turner writes as follows:—

I was on board the S.S. *Goorkha* by 11-30 A.M. and all cargo work was stopped at 11-45. The Health Officer of the Port was on board and made casual examination of the passengers who, like myself, had embarked at Madras. He left the ship at noon to give his bill of health to the agents' clerk, who then had to take the bill to the Custom House and obtain a port clearance. At 12-30 we received notice that as the Health Officer had noticed passengers embarking subsequent to his inspection, he would not give the bill of health before making another inspection between 4 and 5 P.M. It appears that two second class passengers from Calcutta had left the ship early in the morning unknown to the Commander, and returned as the Health Officer was landing on the pier steps after leaving the *Goorkha*. I presume he watched them on board and then wrote to the Agents. We were thus detained pending the pleasure of the Health Officer to visit the ship again. He returned soon after 4 P.M., and we obtained port clearance at 5 P.M. The loss of this time meant arriving off Colombo on Wednesday morning instead of Tuesday evening, and was a clear twelve hours' loss to the ship on her home passage. The same thing may happen again at any time.

Dated Calcutta, the 28th May 1897.

From—The Secretary, Liners' Conference,

To—The Secretary, Chamber of Commerce.

In continuation of my letter of yesterday, and in response to the request of your Committee, I address you more in detail with regard to the new rules published in the *Calcutta Gazette* of 26th instant, page 608, respecting Bills of Health.

Under these rules, paragraph 4, no cargo or passengers can be taken on board a vessel after the bill of health has been granted.

To those conversant with the management of ships it would at once be apparent that, if this rule is adhered to, vessels must be detained 24 hours in port after they are ready for sea. But in order to make this generally clear, it may be necessary to explain that it has been the invariable custom to obtain the bill of health, port clearance, etc., while the loading is being completed, so that a vessel may leave the next morning. In the case of steamers, work usually goes on throughout the night and often up to the very moment of starting.

Under the rule now issued this cannot be done, for a vessel completing her loading, say this Friday evening, in place of clearing to-day and starting tomorrow, must wait until then for the bill of health which, when obtained, has to be presented at the Custom House for port clearance and if the vessel is foreign bound, taken to a Consul for countersignature. By the time all this is done it would be too late for a start and the ship must remain where she is till Sunday.

In the case of a ship finishing her loading on a Saturday, two days would be lost, as a bill of health, or certainly a port clearance, could not be obtained on a Sunday, and the vessel would therefore be detained till Tuesday.

It may be thought that a bill of health might possibly be obtained at a sufficiently early hour to enable the ship to leave the same day. But the bill of health is only a preliminary to the port clearance; and even when no Consul's signature is required, by the time the Custom House is open, the tide would usually be lost. There are frequently, moreover, two or more vessels clearing in one day, which would naturally delay the Health Officer.

In the dry weather when the water in the river is low, it frequently happens that the larger steamers have to take in coals or cargo or passengers, or all three, at Diamond Harbour, after having cleared in Calcutta. Under the new rules a clearance could not be obtained before leaving Calcutta, and the difficulty of getting a bill of health, etc., for a vessel in Diamond Harbour is obvious.

That the detention of a day or more must occur under the new rules is therefore evident, and this is a serious matter for all vessels; but the inconvenience to be expected will be most generally appreciated in the case of passengers. Instead of joining the ships as hitherto at the moment of departure, they will now have to go on board the previous morning to allow the Health Officer to make his inspection and issue his certificate, and they will have to remain in the ship at her moorings in practical quarantine for a day and a night.

The Liners' Conference has every sympathy with Government in its endeavours to prevent the spread of plague; but it is thought that when issuing the present notification, the full consequences in the way of pecuniary loss and personal inconvenience were hardly realised, and I am desired to request that your Chamber will lay the facts before the Secretary to the Government of Bengal with a view to some modification being made in the terms of paragraph IV.

No. 81.

No. 1774, dated Simla, the 2nd July 1897.

From—R. NATHAN, Esq., Under Secretary to the Government of India,
Home Department,

To—The Secretary to the Government of Bengal, Municipal (Medical)
Department.

I am directed to acknowledge the receipt of your letter No. 355-T.M., dated the 12th June, submitting for the information of the Government of India a copy of a letter from the Bengal Chamber of Commerce and of its enclosure representing the inconvenience caused to vessels by rule 4 of the revised Plague Notification No. 3, dated the 25th May 1897, together with a copy of the orders passed thereon by His Honour the Lieutenant-Governor.

2. The orders give effect to a proposal of the Bengal Chamber of Commerce that the Health Officer should be permitted to give the ordinary bill of health to enable the vessel to obtain port clearance and leave, provided that when passengers are carried, she be accompanied down the river by one of the assistants of the Health Officer, who shall inspect the ship and passengers, and grant a final bill of health.

3. I am to observe that the arrangements which involve the examination of passengers on board ship are opposed to the provisions of Chapter I, Section II, of the regulation appended to the Venice Sanitary Convention of 1897. It was explained in paragraph 5 of my letter No. 1625, dated the 1st June, and in paragraph 3 (ii) of my letter No. 1674, dated the 9th June, that the Venice Convention requires the examination of all persons sailing on the vessels to be

effected on shore prior to departure. Under the terms of the Convention foreign Governments may extend their precautions to arrivals from uninfected portions of the country if the Government does not take measures to prevent the infection of ships leaving healthy ports. There is a possibility, probably regarded by the authorities in Europe as greater than it would be regarded in India, of infected persons coming from infected areas to embark at healthy ports such as Calcutta, and the Government of India therefore determined that an examination should be made of all persons embarking from a healthy port to Europe, with a view to ascertain whether they come from an infected area, and if so, whether they are infected or likely to be infected with plague. For the same reasons the Government of India consider that it is very desirable that the examination should take place exactly in the manner prescribed by the Convention. Furthermore if the examination is not made until the passengers are on board, then the discovery of a plague case will necessitate the vessel being treated as infected when she proceeds on her journey.

4. In view of these considerations the Government of India will be glad if, with the permission of His Honour the Lieutenant-Governor, the orders issued by the Government of Bengal are modified so as to require the examination of all persons sailing on the vessel to take place on shore prior to departure. The Governor-General in Council considers that with a sufficient staff of inspecting medical officers examination on shore in the manner prescribed by the Venice Convention should not cause any serious delay in the departure of vessels nor any serious inconvenience to the passengers; and His Excellency in Council trusts that, if this has not already been done, arrangements will be made to minimise the inconvenience by the appointment of a sufficient staff.

MADRAS.

No. 345-Marine, dated the 8th April 1897.

No. 82.

From—COLONEL D. McN. CAMPBELL, R.E., Secretary to the Government of Madras, Marine Department,

To—The Secretary to the Government of India, Home Department.

I am directed to forward, for the information of the Government of India, a copy of the Proceedings of this Government, quoted in the margin, containing a Notification issued by His Excellency the Governor in Council to prevent the spread of Epidemic Diseases,

G. O., No. 344-Marine, dated 8th April 1897.

Extract from the Proceedings of the Government of Madras, Marine Department,
No. 344 Marine, dated the 8th April 1897.

Read the following papers—

From the Surgeon-General, dated 2nd April 1897, No. 190.

Endorsement from the Local and Municipal Department, dated 3rd April
1897, No. 449.

Order thereon by the Government of Madras.

Ordered that the following notification be published in the Fort
St. George and all Maritime District Gazettes:—

NOTIFICATION.

In exercise of the powers conferred by Act III of 1897, the
Epidemic Diseases Act, His Excellency the Governor in Council is
pleased to declare that all vessels and persons leaving the undermen-
tioned ports of the Madras Presidency for ports out of India shall be
subjected to the regulations hereinafter contained.—

Gopalpur.	Masulipatam.	Pamban.
Calingapatam.	Madras.	Calicut.
Baruva.	Cuddalore.	Cochin.
Bimlipatam.	Negapatam.	Tellicherry.
Vizagapatam.	Tranquebar.	Cannanore.
Cocanada.	Tuticorin.	Mangalore.

Regulations.

1. No person shall be permitted to embark on board a vessel
within any such port bound for any port out of India who has within
the preceding ten days resided in or visited a part of India believed
by the Health Officer of the port to be infected by the plague.

2. No vessel shall leave any such port for any port out of India
until she has been inspected by the Health Officer of the port and the
master or person in charge of such vessel has obtained a bill of health
or certificate in the form given below from such officer that the master
or person in charge, officers, crew and passengers (if any) of such
vessel are free from the bubonic plague.

3. Should the Health Officer of the port be of opinion that any
person on board of any vessel so inspected is suffering from the
bubonic plague or is not free from the infection of the plague, he
shall refuse to give a bill of health or certificate as aforesaid unless and
until such person is removed from the vessel and such parts of the
vessel as has been frequented by such person shall have been disin-
fected to the satisfaction of the Health Officer.

4. After the master or person in charge of the vessel has obtained
a bill of health or certificate under the provisions of these rules, no
person or cargo shall be admitted or taken on board such vessel before

she leaves the port unless such vessel is again inspected by the Health Officer of the port and another bill of health or certificate obtained from such officer by the master or person in charge of such vessel.

5. No port clearance shall be delivered to any vessel bound from any such port to any port out of India unless and until the master or person in charge thereof shall produce the bill of health or certificate so to be obtained as aforesaid; and it shall be the duty of Customs officers to refuse delivery of the port clearance without the production of such bill of health or certificate.

6. The duties of Health Officers under these regulations shall be discharged by the medical officers named below, by such other medical officer as may from time to time be appointed for such purpose by the District Medical and Sanitary Officer:—

Ports.	Health Officer.
Gopalpur	Civil Apothecary.
Calingapatam	Do.
Baruva	Hospital Assistant, Sompeta.
Bimlipatam	Civil Apothecary.
Vizagapatam	District Medical and Sanitary Officer.
Cocanada	Civil Surgeon.
Masulipatam	District Medical and Sanitary Officer.
Madras	Port and Marine Surgeon.
Cuddalore	District Medical and Sanitary Officer.
Negapatam	Civil Surgeon.
Tranquebar	Civil Apothecary.
Tuticorin	Do.
Pamban	Do.
Calicut	District Medical and Sanitary Officer.
Cochin	Civil Surgeon.
Tellicherry	Do.
Cannanore	Do.
Mangalore	District Medical and Sanitary Officer.

7. Any person disobeying or contravening any of the foregoing regulations shall be deemed to have committed an offence punishable under section 188 of the Indian Penal Code and shall be liable on

conviction to be punished with imprisonment of either description for a term which may extend to six months or with fine which may extend to one thousand rupees or with both.

Bill of Health.

This is to certify that ship (or steamer) sailing
 * Including officers and able-bodied under the flag and under the
 seamen. command of as master of

tons bound for with a crew of persons*
 and passengers and laden with a cargo of is at the time
 of leaving this port in a satisfactory sanitary condition and that no
 case of bubonic plague exists among her officers, passengers, crew,
 all of whom have been inspected by me.

It is further certified that the town
 † Or as the case may be. and port of are at present
 free from plague.

No. 83.

No. 333-E., dated Ootacamund, the 13th May 1897.

From— The Secretary to the Government of Madras, Marine Department,
 To— The Secretary to the Government of India, Home Department.

I am directed to forward, for the information of the Government
 of India, a copy of the Proceedings of this
 No. 419-Marine, dated the 4th Government, quoted in the margin, containing a Notification issued by His Excellency the Governor in Council to prevent the spread of epidemic diseases.

ORDER—By the Government of Madras, Marine Department.

No. 419, dated the 4th May 1897.

The subjoined Notification will be published in the *Fort St. George Gazette* and in all District Gazettes, in English and the vernaculars.

NOTIFICATION.

In exercise of the powers delegated to him under section 2, sub-section (3) of the Epidemic Diseases Act, 1897, His Excellency the Governor in Council is pleased to make the following temporary Regulation, to be read as a proviso to Regulation 2 of the Regulations published in the *Fort St. George Gazette* Extraordinary of the 8th April 1897 under G. O. No. 344-Marine, dated the 8th April 1897.

No deck passenger who appears to the Port Officer to belong to the labouring classes shall be permitted to embark on board a vessel within the port of Tuticorin bound for a port in Ceylon, until he has satisfied the Medical Officer of the Government of that Colony stationed at Tuticorin that he has not within the preceding ten days resided in or visited a port of India infected by the plague and that he is free from infection with the plague and until the said Colonial officer has

so certified in respect of him. The Health Officer of the Port of Tuticorin shall not deliver a bill of health in respect of any such vessel, if there be on board any such passenger in respect of whom the Colonial officer has not certified as aforesaid.

Extract from the Proceedings of the Government of Madras of the 28th April 1897. **No. 84.**

Read again the following paper :—

G. O., No. 861-M., dated 10th April 1897.

Read also the following paper :—

Telegram from the Colonial Secretary, Colombo, to the Chief Secretary to the Government of Madras, dated 5th April 1897.

Doctor Moraes appointed for duty Tuticorin. Government assumes that there will be no objection to his examining all passengers on board for Ceylon, none being allowed to land without his certificate.

Order No. 999-M., dated 28th April 1897.

Dr. Moraes has been deputed by the Government of Ceylon for duty at Tuticorin in connection with the examination of passengers for Ceylon from parts of India infected by the plague. Every facility will be afforded him for the inspection of persons proceeding as cooly emigrants from this Presidency, and no person of that class will be permitted to embark without a certificate from Dr. Moraes. A regulation will be issued to that effect accordingly. Other passengers may voluntarily present themselves before Dr. Moraes and obtain his certificate for use on landing in the Colony, but will not be required to do so. They should, however, be warned that they will be liable to be prevented from landing at Colombo unless they possess Dr. Moraes' certificate. The foregoing instructions do not in any way dispense with the necessity imposed on all passengers conforming to the existing plague and quarantine regulations.

2. The Collector of Tinnevely will report how the Health Officer at the Port of Tuticorin assures himself that emigrants who profess to be Madrasi coolies from an uninfected district are really such and not travellers from an infected area passing themselves off as such coolies to evade the plague rules and regulations. He will also report in what manner, in his opinion, the Colonial officer who has been deputed to Tuticorin can best assist the local authorities in the necessary examination and enquiries on the point.

3. The following telegram will be despatched to the Colonial Secretary, Colombo :—“ Your telegram, 5th instant. Orders under issue requiring all persons embarking as Madrassi cooly emigrants to procure Dr. Moraes' certificate. Other passengers may also voluntarily obtain his certificate.”

REVISED MADRAS QUARANTINE RULES.

No. 85. Extract from the Proceedings of the Government of Madras, Marine Department, No. 363, dated the 22nd April 1897.

Read the following papers :—

No. 639-S., dated Madras, the 18th March 1897.

From—SURGEON-LIEUTENANT-COLONEL W. G. KING, M.B., C.M.,
D.P.H., Sanitary Commissioner for Madras,

To—The Secretary to Government, Public Works (Marine) Department.

With reference to G. O., Mis. 301-M., dated 26th February 1897, I have the honour to forward somewhat modified suggested regulations as to ports in connection with plague. For convenience of reference I forward an extract from my letter referred to in the Government Order quoted.

Extract from letter from Surgeon-Lieutenant-Colonel W. G. King, M.B., C.M., D.P.H., Sanitary Commissioner for Madras, to the Secretary to Government, Local and Municipal Department, No. 434, dated 20th February 1897.

With reference to telegram from the Chief Secretary, dated 1st instant, received by me on the evening of the 12th and to G. O. No. 165, dated 20th January 1897, I have the honour to submit, herewith, suggestions for the regulations in connection with the proposed Epidemic Diseases Prevention Act.

2. Most of the regulations suggested are justified as to precedent by English or Indian Law—several are merely transcripts altered to suit local requirements. In the case of the section referring to shipping, the wording is throughout practically that of the General Order*

* To all Port Sanitary Authorities. (L.G.B. England), 1890. I would particularly invite your attention to the regulations in this connection. Those issued by Government as a temporary measure in *Fort St. George Gazette* Notification, No. 30, dated 12th instant, seem to me most undesirable. The method adopted by these is virtually that of penning up the sick and healthy in an infected ship alike, notwithstanding the discretion given to the Medical Officer of Health.

This course has not in practice proved successful. So long as men have money with free wills and means of locomotion, they will defy such measures of quarantine, and the very sense of safety which such apparently stringent measures elicit, conduces to failure. There is nothing more likely to hamper trade, and spread disease than a defective system of quarantine. Such measures are in strong contrast

to those possible on land. If it were necessary to hem up sick and healthy alike in a ship, why not also so detain the occupants of a train? No country has had more experience of these matters than England, but she has finally rejected such measures, adopting instead the liberal-minded regulations I have quoted. In short, I would advise on sea as on land the application of the method of "observation" which has already been adopted under my advice by the Municipality of Madras and other municipalities throughout the Presidency. This system of observation must be supplemented by rapid action on the part of all authorities to secure a safe sanitary condition of each locality, and a sufficient sanitary staff to effect rapid segregation of all infected persons and matters.

No. 110-G., dated the 23rd March 1897.

From—COMMANDER H. A. STREET, R.I.M., Presidency Port Officer,
Madras,

To—The Secretary to Government, Marine Department.

With reference to the proposals contained in letter No. 689-3, dated 18th March 1897, from the Sanitary Commissioner, which accompanied Marine Department Memorandum No. 209-E., dated 20th March 1897 (enclosures herewith returned), I have the honour to make the following remarks for the information of Government, *vis.*:—

(1) *Regulations as to shipping.*—I think that the definition given in clauses (2), (3) and (4) of section 3 of Indian Ports Act X of 1889 of the terms "Port officer," "vessel" and "Master" should be substituted for the definition proposed by the Sanitary Commissioner.

(2) *Respecting the hoisting of flags.* It is proposed that flag Q shall be hoisted on board of an infected ship, and that a black flag shall be hoisted below flag Q under certain conditions, but as it is proposed that a vessel shall be deemed *infected with plague* in which there is, or has been during the voyage, or during the stay of such vessel in a port in the course of such voyage, any case of plague, it would be necessary, according to the instructions contained in the concluding part of 1 (a), for the second flag to be displayed. If this is so, when should flag Q be alone shown?

With regard to the "black" flag, I would point out that vessels are not supplied with flags of that colour. I would suggest flag R (the flag used to denote the presence of cholera, small-pox or other epidemic disease on board ship) being used instead. Flag Q should be hoisted at the foremasthead instead of being displayed, as proposed, below the ensign where it would not be so distinguishable. No signal is proposed to meet the case of an infected vessel arriving at a port

after dark ; I, therefore, propose that such vessel shall hoist, on coming to an anchor, one white light at the foremasthead and one red light at the mainmasthead.

(3) I have no remarks to make regarding the proposals under the heading " regulations as to detention by Port officer."

(4) *Regulations as to Sanitary authorities.*—In paragraph 6, the expression " Chief officer of the Port " is used ; the term Port officer should be substituted.

I have no further remarks to offer.

Telegram No. 1290 (Sanitary), dated Simla, the 14th April 1897.

From—The Secretary to the Government of India, Home Department,
To—The Secretary to the Government of Madras, Marine Department.

Your telegram dated 3rd. Government of India agree to proposal of Sanitary Commissioner, Madras, that rules should issue under Act 3 of 1897 that all passengers from infected ship should be landed, sick being sent to isolation hospital. They are not however able to agree that healthy should be allowed to proceed to their destination and there kept under observation in accordance with general order of English Local Government Board of 1890, the reason being that one of principal objects of quarantine regulations imposed on Indian ports is to prevent quarantine in Europe of ships sailing from them, and if European powers understood that quarantine was not rigorously enforced at Madras, neither that port nor others at which vessels proceeding from it might touch on way to Europe would be regarded as uninfected. Healthy should therefore be detained under observation in suitable isolation shelter for ten days from date of landing or from last subsequent case. Clothing of passengers and other susceptible articles should be disinfected before passengers allowed to leave. Please send copy of rules for publication in *Gazette of India* stating date from which they take effect.

Order thereon by the Government of Madras.

Ordered that the following notification be published in the Fort St. George and all Maritime District Gazettes:—

NOTIFICATION.

In exercise of the powers delegated to him by the Governor-General in Council under section 2, sub-section (3) of the Epidemic Diseases Act, 1897, His Excellency the Governor in Council is pleased to prescribe, under the said Epidemic Diseases Act, the following temporary regulations to be observed in all ports of the Madras

Presidency. These regulations will come into effect from the date of publication thereof and will supersede the regulations now in force under Act I of 1870.

Definitions.

In these regulations—

"Vessel" includes anything made for conveyance by water or human beings or of property.

"Port officer" includes any person acting under the authority of Government in charge of Port discipline.

"Master," when used in relation to any vessel, means any person (except a pilot or harbour master) having for the time being the charge or control of the vessel.

"Sanitary authority" means the Collector of the district, and every Municipal Council and Local Board, the area under whose jurisdiction includes or abuts on any part of a customs port; and the jurisdiction of every Sanitary authority shall, for the purposes of these regulations, extend to seaward for a distance of three miles beyond low water mark on all parts of the coast line bounding the area ordinarily under its jurisdiction.

"Port Health officer" includes any duly qualified medical practitioner appointed by a Sanitary authority or by the Local Government to act in the execution of these regulations.

For the purpose of these regulations, every vessel shall be deemed infected with plague in which there is, or has been, during the voyage then in progress or presently concluded, or during the stay of such vessel in a port in the course of such a voyage, any case of plague.

1.—Flags to be hoisted by vessels infected with plague.

1. (a) The master of every vessel infected with plague shall, when within three miles of the coast of any part of the Madras Presidency, cause to be hoisted at the foremasthead the Commercial Code flag Q being a yellow flag, and shall keep the same displayed during the whole time between sunrise and sunset. If any person on board such vessel be at the time sick of the plague, the master shall also hoist the Commercial Code flag R below the yellow flag Q. Any such vessel arriving at a port after dark shall hoist on coming to an anchor one white light at the foremasthead and one red light at the mainmasthead.

(b) He shall before arriving at an anchorage free his vessel from bilge water and pass fresh sea water over the parts that have been in contact with such bilge water.

II.—Regulations as to detention by Port Officers.

2. If a Port officer on the arrival of any vessel ascertains from the master of such vessel or otherwise has reason to suspect that the vessel is infected with plague, he shall detain such vessel, and order the master forthwith to moor or anchor the same in such position as may be appointed under regulation 6.

3. While such vessel shall be so detained, no person shall leave the same.

4. The Port officer detaining any vessel as aforesaid shall forthwith give notice thereof and of the cause of such detention to the Sanitary authority of the port.

5. Such detention by the Port officer shall cease as soon as the vessel shall have been duly visited and examined by the Port Health officer or, if the vessel shall, upon such examination, be found to be infected with plague, as soon as the same shall be moored or anchored in pursuance of regulations 6 and 10; provided that, if the examination be not commenced within twelve hours after notice given as aforesaid, the vessel shall, on expiration of the said twelve hours, be released from detention. In such latter case, the Port officer shall send immediate information to the Sanitary authorities of the port to which the vessel is bound or at which she is next about to call.

III.—Regulations as to Sanitary Authorities.

6. Every Sanitary authority within whose jurisdiction a port exists shall, as speedily as practicable, with the approval of the Port officer, fix some place where vessels may be moored or anchored for the purpose of regulation 10; and shall make provision for the reception of plague patients and persons suffering from illness removed under regulations 13 and 14. The place to be fixed as aforesaid, where any vessel may be moored or anchored for the purpose of regulation 10, shall be some place within the jurisdiction of the Sanitary authority, unless the Local Government otherwise orders, in which case the place so fixed shall, for the purposes of these regulations, be deemed to be within such jurisdiction.

7. It shall be the duty of the Port officer on the approach to the port of an infected vessel to make the fact known to the Port Health officer who shall forthwith visit and examine the vessel, in regard to which such notice shall have been given, for the purpose of ascertaining whether she is infected with plague.

8. The Port Health officer if he has reason to believe that any vessel which has arrived or is within the jurisdiction of the Sanitary authority, whether examined by the Port officer or not, is infected with

plague or has come from a place where plague prevails, shall visit and examine such vessel, for the purpose of ascertaining whether she is so infected; and the master of such vessel shall permit the same to be so visited and examined.

9. If the Port Health officer, on making such examination as aforesaid, whether under regulation 7 or under regulation 8, be of opinion that the vessel is infected, he shall forthwith give a certificate in duplicate in the following form, or to the like effect, and shall deliver one copy to the master and transmit the other to the Sanitary authority. He shall also give immediate information of the arrival of the vessel to the Sanitary Commissioner of Madras.

Certificate.

day of 189 .

I hereby certify that I have examined the vessel , of
now lying in the port of (or detained at
) and that I find that she is infected with plague.

Port Health Officer.

10. The master of any vessel so certified to be infected with plague shall thereupon moor or anchor her at the place fixed for that purpose under regulation 6 where she shall remain until the requirements of these regulations have been duly fulfilled.

11. No person shall leave any such vessel until the examination hereinafter mentioned shall have been made.

12. The Port Health officer shall, as soon as possible after any such vessel has been certified to be infected with plague, examine every person on board the same and in the case of any person suffering from plague, or from any illness which the Port Health officer suspects may prove to be plague, shall certify accordingly. Every person who shall not be so certified by him shall be permitted to land and shall be detained under observation in a suitable isolation camp or other place for ten days from the date of his landing or from the date of the occurrence of the last subsequent case of plague which may occur among the persons detained in such camp or place, whichever date may be latest, after which he shall be released if certified by the Chief Medical Officer on the spot to be free from plague.

13. Every person certified by the Port Health officer to be suffering from plague shall be removed, if his condition admit of it, to some isolation hospital or other suitable place appointed for that purpose by the Sanitary authority; and no person so removed shall leave such hospital or place, until the Chief Medical officer present at the spot shall have certified that such person is free from the said disease.

If any person suffering from plague cannot be removed, the vessel shall remain subject, for the purpose of this regulation, to the control of the Port Health officer; and the infected person shall not be removed from or leave the vessel, except with the consent in writing of the Port Health officer.

14. Any person certified by the Port Health officer to be suffering from illness, which such officer suspects may prove to be plague, may either be detained on board the vessel for any period not exceeding four days, or may be taken, either immediately or at any time within the said period of four days to some hospital, observation camp, or ward or other suitable place appointed for that purpose by the Sanitary authority, and detained there for a period of ten days, in order that it may be ascertained whether the illness is or is not plague.

Any such person who, while so detained, shall be certified by a competent Medical officer to be suffering from plague, shall be dealt with as provided by regulation 13.

15. The Port Health officer shall, in the case of every vessel certified to be infected, give such directions and take such steps as may appear to him to be necessary for preventing the spread of infection, and the master of the said vessel shall forthwith carry into execution such directions as shall be so given to him.

16. In the event of any death from plague on board such vessel while detained under regulation 10, the master shall, as directed by the Sanitary authority, or the Port Health officer, either cause the dead body to be taken out to sea and committed to the deep properly loaded to prevent its rising, or shall deliver it into the charge of the Sanitary authority for disposal, if the former procedure be not in accordance with caste or race customs.

17. The master shall cause any articles that may have been soiled with plague discharges to be destroyed, and the clothing and bedding and other articles of personal use likely to retain infection which have been used by any person who has suffered from plague on board such vessel, or who, having left such vessel, shall have suffered from plague during the stay of such vessel in the port to be also destroyed; and if the master shall have neglected to do so before the vessel arrives in port, he shall forthwith, upon the direction of the Sanitary authority or the Port Health officer, cause the same to be destroyed; and if the said master neglect to comply with such direction within a reasonable time, the Sanitary authority shall cause the same to be carried into execution.

18. The master shall cause the vessel to be disinfected and every article therein, other than those last described which may probably be

infected with plague, to be disinfected or destroyed, according to the directions of the Port Health officer.

19. Provided facilities exist for obtaining suitable water in the port, the master shall, on the requisition of the Port Health officer, cause all tanks to be completely emptied and cleaned and disinfected in such manner as the Port Health officer may direct.

20. Any mails or cargo which may be brought by any vessel so arriving shall be landed under such precautions as the Port Health officer may deem necessary to prevent the spread of the disease.

21. It will be the duty of the Port officer to facilitate the conveyance to all vessels detained under regulations 6 and 10 of such supplies of provisions, stores or other articles as may be required by those on board. Such supplies will be placed on the boats of the vessel, to be subsequently removed by members of their crews.

22. All expenses incurred by any Sanitary authority in carrying out these regulations shall be defrayed from Municipal or District or Taluk funds in such proportions as the District Collector may, subject to the orders of the Local Government, direct.

23. Any person disobeying or contravening any of the foregoing regulations shall be deemed to have committed an offence punishable under section 188 of the Indian Penal Code, and shall be liable on conviction to be punished with imprisonment of either description for a term which may extend to six months or with fine which may extend to one thousand rupees or with both.

Extract from the Proceedings of the Government of Madras, Marine Department, No. 86.
No. 511, dated the 4th June 1897.

Read the following papers :—

Telegram No. 1607 (Sanitary), dated Simla, the 31st May 1897.

From—The Secretary to the Government of India, Home Department,

To—The Secretary to the Government of Madras, Local and Municipal Department.

Madras Government G. O. 363, dated 22nd, prescribing quarantine rules in supersession of those in force under Act I of 1870. Quarantine rules issued under Act I of 1870 with previous sanction Governor General in Council require to be rescinded by notification under same Act with same sanction. Please issue notification and forward copy for publication in *Gazette of India*.

No. 613, Local and Municipal.

Transferred to the Marine Department.

Order thereon.

Ordered that the following notification be published in the *Fort St. George Gazette*, and a copy forwarded to the Government of India for publication in the *Gazette of India* :—

In exercise of the power conferred by Act I of 1870, and with the previous sanction of the Governor General in Council, the rules for quarantine against plague made by the Government of Madras under the said Act are hereby cancelled by the Governor in Council.

Venice Sanitary Convention of 1897.

10, 87.

Nos. 1623—26, dated Simla, the 1st June 1897.

From—J. P. HEWITT, Esq., C.I.E., Secretary to the Government of India, Home Department,

To—The Secretary to the Government of Bombay, General Department,
The Secretary to the Government of Madras, Local and Municipal Department.

The Secretary to the Government of Bengal, Marine Department.

The Chief Secretary to the Government of Burma.

I am directed to forward, for the information of the Government of

Bombay
Madras
Bengal
Burma

a copy of a translation of the Convention framed at the Sanitary Conference recently held at Venice for the purpose of considering measures to prevent the spread of the plague.

2. The regulations prescribed by the present Convention are based on the conclusions of the Sanitary Conferences of Venice, 1892; Dresden, 1893; and Paris, 1894; these conclusions have been modified to meet the special peculiarities of the plague, and in accordance with modern scientific views regarding sanitary precautions for the prevention of the spread of epidemic disease.

3. The following are the most important points in which the present Convention differs from the previous Conventions on which it is based :—

- (i) The fact that the period of incubation in the case of plague may be considerably longer than in the case of cholera has led to several important modifications. By the Venice Conference of 1892 the period of incubation for cholera was fixed at five days. Proposals have been made to fix the period of incubation for plague as high as fifteen days, but the period which has been adopted by the Conference for the purpose of the plague regulations, is ten days.

- (ii) The list of articles of commerce which may be considered "susceptible" has been considerably increased; but it has been left to the option of the Governments concerned to allow or prohibit the importation of the commodities, on the "susceptible" list, no article being subject to absolute prohibition.
- (iii) It provides that the modern principles of disinfection should be substituted for the obsolete system of land quarantine, but, with a view to the protection of countries which may find it difficult to thus protect their borders, each of the Governments who are parties to the Convention is at liberty to close its frontiers to travellers and merchandise.
- (iv) It embodies the provisions of the Paris Convention on the subject of the regulation of the pilgrim traffic, but in several respects those provisions have been altered in the directions for which the Government of India have contended. A separate communication will be sent on this subject.

4. The first chapter of the Convention deals with the measures for the prevention of plague which are to be adopted outside Europe. In the first place, it is laid down that the Governments who adhere to the Convention are to notify to other Governments the existence of plague within their several jurisdictions, and must communicate to them a statement of the measures of prevention that are being carried out to prevent its diffusion. This requirement as to notification is, however, subject to certain important conditions. Thus the area to be deemed infected is strictly limited to the actual district, town, village, etc., where the disease prevails; and no locality is to be deemed infected merely on account of the importation into it of a few cases of plague which have led to no diffusion of the malady.

5. The Regulations next deal with the measures to be taken on the departure of vessels from infected ports. It is laid down that every person sailing on the vessel must be examined on shore immediately before embarkation by a medical officer appointed by the Government and that the Consular authority interested in the ship may be present at the inspection. All infected and suspected articles must be subjected to careful disinfection on shore and in the presence of the Government medical officer in accordance with the rules for disinfection prescribed in Chapter III of the Annexure to the Convention and no persons showing symptoms of plague may be permitted to embark.

Rules have been issued by the Governments of Bombay, Madras and Bengal under the Epidemic Diseases Act, 1897, which have been in force for some time, prescribing precautions to be taken on the departure of vessels. The rules framed by the Government of Bombay, which are in force at the ports of Bombay and Karachi, prescribe medical inspection and the removal from the vessel of any person suspected to be suffering from dangerous epidemic disease. The rules framed by the Government of Madras, which are in force at the principal ports of the Presidency, authorise the grant of a bill-of-health after medical inspection, the removal of any person suspected to be suffering from plague or not to be free from plague infection, and the disinfection of the infected portions of the ship. The rules framed by the Government of Bengal, which are in force at the port of Calcutta, prescribe medical inspection, the removal of persons suffering or suspected to be suffering from plague, and the detention of the vessel from which such persons have been removed for a period of seven days, after the lapse of which the vessel may proceed if no fresh case has occurred.

In order that the obligations imposed by the Convention may be fulfilled at an infected port it is essential that the medical inspection and disinfection should be conducted exactly in the manner prescribed by the regulations and summarised above. The Government of India consider that it is also desirable that all non-professional attendants and relatives of any persons, who on examination appear to be suffering from plague, shall be prevented from embarking. If after the medical examination has been completed and all the passengers and crew are on board, a case of plague occurs, the patient and his non-professional attendants and relations must be landed and isolated on the first opportunity. The ship will then become an infected vessel within the definition given below in paragraph 7. Although the ports of Madras and Calcutta are not infected, the Local Governments have, with the approval of the Government of India, made the special rules for medical inspection referred to above, and, in the opinion of the Governor General in Council, it is desirable that they should be assimilated, in the case of vessels sailing for ports out of India, as far as possible to those which will, under the terms of the Convention, have to be adopted at the infected ports of the Bombay Presidency.

I am to request that the rules issued by the Government of ^{Bombay}~~Madras~~
~~Madras~~
~~Calcutta~~
~~Bombay~~ may be altered in accordance with these instructions. The rules

- (ii) The list of articles of commerce which may be considered "susceptible" has been considerably increased; but it has been left to the option of the Governments concerned to allow or prohibit the importation of the commodities, on the "susceptible" list, no article being subject to absolute prohibition.
- (iii) It provides that the modern principles of disinfection should be substituted for the obsolete system of land quarantine, but, with a view to the protection of countries which may find it difficult to thus protect their borders, each of the Governments who are parties to the Convention is at liberty to close its frontiers to travellers and merchandise.
- (iv) It embodies the provisions of the Paris Convention on the subject of the regulation of the pilgrim traffic, but in several respects those provisions have been altered in the directions for which the Government of India have contended. A separate communication will be sent on this subject.

4. The first chapter of the Convention deals with the measures for the prevention of plague which are to be adopted outside Europe. In the first place, it is laid down that the Governments who adhere to the Convention are to notify to other Governments the existence of plague within their several jurisdictions, and must communicate to them a statement of the measures of prevention that are being carried out to prevent its diffusion. This requirement as to notification is, however, subject to certain important conditions. Thus the area to be deemed infected is strictly limited to the actual district, town, village, etc., where the disease prevails; and no locality is to be deemed infected merely on account of the importation into it of a few cases of plague which have led to no diffusion of the malady.

5. The Regulations next deal with the measures to be taken on the departure of vessels from infected ports. It is laid down that every person sailing on the vessel must be examined on shore immediately before embarkation by a medical officer appointed by the Government and that the Consular authority interested in the ship may be present at the inspection. All infected and suspected articles must be subjected to careful disinfection on shore and in the presence of the Government medical officer in accordance with the rules for disinfection prescribed in Chapter III of the Annexure to the Convention and no persons showing symptoms of plague may be permitted to embark.

Rules have been issued by the Governments of Bombay, Madras and Bengal under the Epidemic Diseases Act, 1897, which have been in force for some time, prescribing precautions to be taken on the departure of vessels. The rules framed by the Government of Bombay, which are in force at the ports of Bombay and Karachi, prescribe medical inspection and the removal from the vessel of any person suspected to be suffering from dangerous epidemic disease. The rules framed by the Government of Madras, which are in force at the principal ports of the Presidency, authorise the grant of a bill-of-health after medical inspection, the removal of any person suspected to be suffering from plague or not to be free from plague infection, and the disinfection of the infected portions of the ship. The rules framed by the Government of Bengal, which are in force at the port of Calcutta, prescribe medical inspection, the removal of persons suffering or suspected to be suffering from plague, and the detention of the vessel from which such persons have been removed for a period of seven days, after the lapse of which the vessel may proceed if no fresh case has occurred.

In order that the obligations imposed by the Convention may be fulfilled at an infected port it is essential that the medical inspection and disinfection should be conducted exactly in the manner prescribed by the regulations and summarised above. The Government of India consider that it is also desirable that all non-professional attendants and relatives of any persons, who on examination appear to be suffering from plague, shall be prevented from embarking. If after the medical examination has been completed and all the passengers and crew are on board, a case of plague occurs, the patient and his non-professional attendants and relations must be landed and isolated on the first opportunity. The ship will then become an infected vessel within the definition given below in paragraph 7. Although the ports of Madras and Calcutta are not infected, the Local Governments have, with the approval of the Government of India, made the special rules for medical inspection referred to above, and, in the opinion of the Governor General in Council, it is desirable that they should be assimilated, in the case of vessels sailing for ports out of India, as far as possible to those which will, under the terms of the Convention, have to be adopted at the infected ports of the Bombay Presidency.

I am to request that the rules issued by the Government of ^{Bombay} ^{Madras} ^{Bengal} ^{Burma} may be altered in accordance with these instructions. The rules

should be made applicable to all infected ports in the Bombay Presidency.

6. The rules regarding pilgrim-ships which form the next portion of the regulations will, as stated in paragraph 3 above, be dealt with in a separate communication.

7. The regulations for the control of the general traffic in the Red Sea and the Suez Canal are based on the threefold classification of ships into healthy, suspected and infected adopted in the Venice Convention of 1892, with the modifications rendered necessary owing to the period of incubation in the case of plague having been fixed at ten days.

Healthy vessels are those which have left an infected port for ten days or more and have had no case of plague on board; suspected vessels are those on which, though cases of plague have occurred, no fresh case has occurred within twelve days; and infected vessels are those on which plague has been present within twelve days of arrival.

The period of twelve days is arrived at, as in the case of the seven days' period in the Convention of 1892, by adding two days to the period of incubation.

A healthy vessel thus becomes entitled to free pratique at a port at which it arrives ten days or more after leaving an infected port, but the adoption of this period has the serious result that fast vessels sailing from Bombay will arrive at the Suez Canal before pratique can be granted. This difficulty has been satisfactorily overcome by permitting healthy vessels to pass through the Canal in quarantine and to complete in the Mediterranean the ten days necessary to receiving free pratique at a port of arrival. Vessels passing through the Canal in quarantine may, subject to the use of electric light, coal in quarantine at Port Said by night as well as by day, and passengers may embark in quarantine at that port.

The rules for infected and suspected ships follow those of the Venice Convention of 1892. Vessels carrying a doctor and a disinfecting stove are allowed to pass through the Canal in quarantine after, in the case of infected vessels, landing those suffering from plague and persons who have been in actual contact with the sick or with infected articles and after disinfection of the infected compartment of the vessel. Vessels without a doctor and disinfecting stove are detained at Moses' Wells. Such vessels if suspected are detained for the period required for disinfection and for ascertaining the condition of the ship's health, while, if infected, the passengers are detained on shore under observation for a maximum period of ten days. The medical and sanitary staff at Moses' Wells is to be increased for the purpose of carrying out these regulations.

8. The last matter to notice in the chapter of the regulations dealing with the measures to be adopted against the plague outside Europe is that of the measures to be taken in the Persian Gulf. The conclusions of the Conference on this question differ greatly from those embodied in the Paris Convention. Healthy vessels reaching Ormuz before the expiration of ten days since they last touched at a port infected with plague must either complete that period at Ormuz or may, after medical inspection, continue their voyage up the Gulf or the Shatt-ul-Arab, provided they do so in quarantine for such term as is required to complete the ten days. The same provision will apply to suspected vessels, that is vessels on which there has been a case of plague, but no fresh case for twelve days, subject to submission to certain processes of disinfection, etc., at Ormuz; and infected vessels will, after landing their sick, together with those persons who have been in actual contact with them, and after disinfection of that part of the vessel deemed to be infected, likewise have permission to proceed on their voyage in quarantine. The final arrangements as to the sanitary station at Ormuz are to be a matter of agreement between the Turkish and Persian Governments, and until these arrangements are completed a temporary sanitary station will be established on one of the islands in the Straits of Ormuz.

9. The second chapter of the regulation deals with the measures to be adopted by the European Governments who have assented to the terms of the Convention. The provisions relating to notification have been mentioned in paragraph 4 above. Allusion has also been made in paragraph 3 to the regulations regarding the importation of merchandise.

This matter requires some further notice. The following are the commodities which are classed as susceptible and the import of which may be prohibited:

- (1) Used body linen, clothes, bedding and other personal effects.
- (2) Rags, including rags compressed by hydraulic pressure and transported in bales as merchandise.
- (3) Used sacking, carpets, and old embroidery.
- (4) Green and untanned hides and skins.
- (5) Animal refuse, claws, hoofs, horsehair, hair of animals generally, raw silk and wool.
- (6) Human hair.

The prohibition of import is only to be enforced at the option of the Government concerned. The only articles which must of necessity be subjected on arrival to any precautionary measures, such as disinfection, are clothing, bedding and similar articles, which have

been actually worn or used, and which are carried as ordinary luggage, if they have been brought from an infected area and are considered by the local sanitary authority to be contaminated. The Government of India do not consider it necessary to add to the list of articles, the import of which by sea from infected ports into other ports in British India is prohibited in Home Department Notification No. 513, dated the 17th February 1897, and the bringing of which from the Bombay Presidency and Sind into other parts of British India is prohibited in Home Department Notification No. 1033, dated the 22nd March 1897. This remark applies only to the import of articles from the Bombay Presidency and Sind for use in other parts of India. In reciting the obligation imposed on the countries which are parties to the Convention to confine their precautionary measures to goods coming from the infected local area, it is stated in Chapter II, section III of the Regulations, that this obligation only exists on the express understanding that the Government of the infected country takes the necessary measures to prevent the exportation of susceptible articles derived from the infected area. In other words, a Foreign Government would be liberty to decline to receive articles classed as susceptible coming from a clean port unless measures are taken in India to prevent the exportation from that port of susceptible articles coming from the infected area. The orders contained in the Home Department notifications of February and March last alluded to above only partly fulfil this condition since they only refer to used apparel and bedding, rags, waste paper and used gunny-bags. All Foreign Governments have not, however, availed themselves of the option of prohibiting the import of all the articles classed as susceptible even from Bombay itself, and the decree of the French Government of the 16th April 1897, which was published in the *Gazette of India* of the 22nd instant under Home Department Notification No. 1545, dated the 21st instant, and is based on the Venice Convention of 1897, only prescribes prohibitory and precautionary measures against goods derived from the infected area. The decree only forbids the importation into France and Algeria of rags, animal refuse, claws and hoofs coming directly or indirectly from the infected local area. Raw and manufactured wool is admitted after disinfection, and this restriction is only imposed when the commodity comes directly from the infected area. Used and new linen, wearing apparel, personal effects and bedding and raw hides, coming directly or indirectly from the infected area, are admitted after disinfection. The decree further provides that any vessel coming from an infected area, or having on board any of the articles coming within the description given above may only enter certain specified ports. In these

circumstances and in view of the optional nature of this part of the regulations, the Government of India do not propose at present to issue orders in addition to the orders of February and March last, with the view of prohibiting the exportation from clean ports of articles included in the "susceptible" list and coming from the Bombay Presidency and Sind. But if the Governments of Madras, Bengal and Burma, after consulting the mercantile community, consider that prohibitive orders should issue with regard to all or any of the susceptible articles for the protection of clean ports, the Government of India will be prepared to consider proposals with this object.

It is to be remarked that new gunny-bags are not in the list of articles classed as susceptible by the Conference.

10. The portion of Chapter II which relates to traffic by sea and the measures to be adopted at ports of arrival is of great interest, not only because of its direct bearing on the conditions of intercourse between India and Europe, but also because it contains the conclusions of the Conference on the important subject of the quarantine of vessels.

The threefold division of vessels, referred to above, is maintained in this chapter. The regulations respecting infected vessels are that the sick are to be landed and isolated, and the remainder of those on board to be subjected, at the discretion of the local authority, either to "observation" or to "surveillance" for a period which is not to exceed ten days from the occurrence of the last case of plague. The term "observation" means the detention under observation of the person either on board a ship or in a place of segregation on shore. Persons subjected to "surveillance" are not to be isolated, but are to be allowed to proceed at once to their destination where they are to remain under medical supervision. In the case of an infected ship the dirty linen and other effects of the passengers and crew which the local sanitary authorities may consider likely to be contaminated, must be disinfected. So also must the parts of the ship where the sick have resided, and the local authorities may require a more extensive disinfection to be carried out. Lastly the bilge-water must be thrown out after disinfection and fresh drinking-water supplied.

In the case of suspected vessels, a medical inspection and the same process of disinfection, discharge of bilge-water and supply of fresh drinking-water is prescribed. It is further recommended that the crew and passengers should be subjected to "surveillance" for a period of ten days from the date of arrival of the vessel. Pratique is to be given at once to healthy vessels, but it is also provided that, at the option of the local authority, the precautionary measures enforced

in the case of suspected ships, except the disinfection of the vessel, may be required; and it is also recommended that the passengers and crew should be subject to "surveillance" for a period sufficient to complete a term of ten days from the date of departure of the vessel from the infected port.

11. The quarantine rules made by the Governments of Madras, Bengal and Burma under the powers conferred by section 1, Act I of 1870, with the previous sanction of the Governor General in Council to protect their ports from being regarded by the European powers as infected, prescribe fifteen days' quarantine for all vessels in which a case of plague is found on arrival, or on which it is believed that a case has occurred during the voyage, with this exception that the rules for Calcutta apparently prescribe only eight days' quarantine in the latter case. In the Bombay Presidency all the principal ports are infected and the Government of Bombay have issued special rules regarding inspection, segregation and disinfection at these ports. Under the rules of the other Maritime Governments no communication may be held with other boats or vessels or with the shore whilst the vessel remains in quarantine, but the Health Officer may direct the removal of so many of the passengers and crew as may not be suffering from illness, and whose services may not be required on board, to places of segregation on shore where they are required to complete the period of quarantine. If a case of plague occurs whilst the quarantine is in progress, quarantine recommences for a further period of fifteen days.

The period of fifteen days' quarantine was fixed in view of the possibility that some of the Governments in Europe might not regard quarantine as effective if it were prescribed for a shorter period, but now that the Conference has authoritatively pronounced that the period of incubation may be taken at ten days, the period of observation should be reduced from fifteen to ten days. The quarantine rules in the case of vessels on which there is a case of plague at the time of arrival, or on which it is believed that a plague case has occurred during the voyage, should also be modified in accordance with the regulations framed by the Conference for infected vessels. The Government of Madras have already revised their rules in a similar direction. The Governor General in Council lays special stress upon the undesirability of detaining the sick and healthy on boardship together. The sick should be landed and treated in an isolation hospital, and the healthy should be landed and detained under observation in suitable segregation shelter for a period of ten days from the occurrence of the last case. The disinfection and other precautionary measures prescribed by the Conference should also be complied with.

12. The quarantine rules framed by the Maritime Governments differ somewhat from one another as regards the treatment of vessels on which no case of plague has occurred during the voyage. Their general purport is to the effect that eight days' quarantine may be imposed at the absolute or limited discretion of the Health Officer unless pratique has been granted at Colombo or some other intermediate port.

The maximum period of detention of a vessel on which the Health Officer is satisfied that no case of plague has occurred should be ten days from the date of departure from the infected port. If the Health Officer is not satisfied that there has really been no case on board or if ten days have not elapsed since the date of departure from the infected port, the vessel may be detained, at his discretion, up to this period. In any case in which a vessel is given free pratique less than ten days after her departure from the infected port, the Health Officer should be empowered, on the analogy of the rules for the observation of persons travelling by railway which have been framed by several of the Local Governments, to detain under observation in a suitable place of segregation, up to a maximum of ten days from the date of departure of the vessel, any person landed from the ship whom he may consider to be in any way likely to carry infection. Any articles of clothing or other effects belonging to the persons detained or to other persons which by reason of their dirty condition or otherwise may be considered likely to be contaminated, should be disinfected. Discretion may be given to the Health Officer to apply the other provisions regarding disinfection, etc., prescribed by the Convention in the case of suspected ships. The Local Government may also make such arrangements as are possible for the surveillance of persons who are not detained, on arrival at their destination. Free pratique granted at Colombo or other intermediate port should be recognised.

I am to request that, with permission of His Excellency the Governor of
Bombay Madras Bengal Burma the quarantine rules in force in Bombay Madras Bengal Burma may be modified in accordance with the above remarks, and that a copy of the revised rules may be forwarded to this Department for insertion in the Government of India Gazette.

13. The Government of Bombay have at present under consideration the revision of the rules for the port of Aden. In making this revision the conclusions of the Conference should be borne in mind. In view of the position of Aden as the port of call for Europe the

existing rule which refuses pratique to all vessels until ten days from the date of their departure should be maintained.

14. The remainder of the Convention does not call for special comment.

Translation of the Venice Convention.

No. 88.

Her Majesty the Queen of Great Britain and Ireland, Empress of India; His Majesty the King of Spain, and, in his name, Her Majesty the Queen Regent; His Majesty the Emperor of Germany, King of Prussia, on behalf of the German Empire; His Majesty the Emperor of Austria, King of Bohemia, etc., etc., and Apostolic King of Hungary; His Majesty the King of Belgium; the President of the French Republic; His Majesty the King of Greece; His Majesty the King of Italy; His Royal Highness the Grand Duke of Luxembourg; His Highness the Prince of Montenegro; His Majesty the Sultan of Turkey; Her Majesty the Queen of the Netherlands, and, in her name, Her Majesty the Queen Regent; His Majesty the Shah of Persia; His Majesty the King of Portugal and Algarva; His Majesty the King of Roumania; His Majesty the Emperor of Russia; His Majesty the King of Servia; the Federal Council of Switzerland.

Having decided to concert measures for the prevention of the introduction and spread of the plague, and for the necessary sanitary supervision of the Red Sea and Persian Gulf traffic, have nominated their plenipotentiaries as follows:—

[Here follow the names of the plenipotentiaries nominated by the several Governments.]

These plenipotentiaries, having exchanged their full powers, and found them in due and proper form, are agreed on the following regulations with regard to districts infected with plague, and with regard to arrivals from those districts:

1. The measures described in the General Sanitary Regulations for the prevention of the introduction and spread of the plague, annexed to the present Convention, are adopted and have the same force as if they were embodied in it.
2. The proper authorities in Morocco will be requested to apply, to the ports of that country, measures in conformity with those prescribed in the above mentioned rules.
3. Those countries which have not taken part in the Conference, or which have not signed the Convention, may, on demand, be permitted to become parties to it.

The fact will be notified, through diplomatic channels, to the Italian Government, and by the latter to the other Governments who are parties to the Convention.

4. The present Convention will remain in force for five years, dating from the exchange of ratifications.

It will be renewed every five years, by tacit consent, unless one of the high contracting parties notifies, six months before the expiration of the aforesaid period of five years, its intention to withdraw from it.

In the event of one of the powers withdrawing from the Convention, this withdrawal will only effect that power.

5. The high contracting parties reserve to themselves the right of suggesting, through diplomatic channels, any modifications which they may deem necessary in the Convention or its annexures.

The Convention will be ratified; the ratifications will be deposited at Rome, as soon as possible, and, at the latest, within one year from the date of signature.

In witness whereof the respective plenipotentiaries have signed and sealed the Convention.

Executed at Venice, in eighteen parts, on the 19th March 1897.

GENERAL RULES FOR THE PREVENTION OF THE INTRODUCTION AND SPREAD OF THE PLAGUE.

CHAPTER I.

Measures to be taken out of Europe.

I.

NOTIFICATION.

The Government of each country which adheres to the present Convention will notify to the Governments of the other countries, by telegram, the appearance of any case of plague in their territories in accordance with section I, Chapter II, "Measures to be taken in Europe." Sections 2, 3 and 4 of the same chapter are also applicable out of Europe.

It is also desirable that the measures prescribed for countries in Europe in order to keep the signatories of the Convention informed of an outbreak of the plague, and also the means adopted to prevent its propagation, and importation into uninfected countries, should be applied in other countries.

II.

SANITARY MEASURES FOR SHIPS SAILING FROM INFECTED PORTS.

MEASURES APPLICABLE BOTH TO ORDINARY VESSELS AND TO PILGRIM SHIPS.

1. Compulsory individual medical inspection, by day, on shore, at the time of embarkation, during such period as may be necessary, by a doctor appointed by public authority, on each person sailing on the ship.

The Consular authority interested in the ship may be present at this inspection.

2. Compulsory and rigorous disinfection, on shore, under the superintendence of a doctor appointed by public authority, of every contaminated or suspected article in the manner prescribed in paragraph 5, Chapter III of the annexure to this Convention.

3. Prevention of the embarkation of any person showing symptoms of plague.

PILGRIM SHIPS.

1. When there is plague in the port, embarkation on board pilgrim ships must not take place, until the pilgrims collected in groups have been subjected to an inspection sufficient to ascertain that none of them are suffering from plague.

It is to be understood that in carrying out this measure each Government may take into account local considerations and conditions.*

2. Pilgrims must possess the means absolutely necessary for the accomplishment of the pilgrimage, for the voyage out and for the return voyage and for the sojourn in the holy places, if local circumstances permit of this rule being enforced.

MEASURES TO BE TAKEN ON BOARD PILGRIM SHIPS.

SECTION I.—*General Rules.*

Art. 1.—The following regulations are applicable to pilgrim ships which carry Muhammadan pilgrims to or from the Hedjaz or the Persian Gulf.

Art. 2.—A ship is not to be considered a pilgrim ship although, in addition to her ordinary passengers, among whom may be included pilgrims of the upper classes, it carries pilgrims of the lowest class in a less proportion than one pilgrim per 100 tons gross.

* The Conference has decided, for instance, that, in the Dutch Indies, this inspection may be made on boardship at the time of departure.

Art. 3.—Every pilgrim ship, on entering the Red Sea and the Persian Gulf, must conform to the instructions contained in the *Rules specially prescribed for the pilgrimage to the Hedjaz* which will be published by the Constantinople Board of Health, in accordance with the principles laid down in the present Convention.

Art. 4.—Steamers only are permitted to carry pilgrims on long voyages. The carriage of pilgrims by other ships on such voyages is prohibited.

Pilgrim ships, on coasting service, intended for short passages called "coasting voyages," must obey the instructions contained in the special rules mentioned in article 3.

SECTION II.—*Measures to be taken before departure.*

Art. 5.—The captain, or in default the proprietor or agent of every pilgrim ship, is bound to declare to the appointed authority* of the port of departure his intention to embark pilgrims, at least three days before departure. This declaration must state the proposed date of departure and destination of the vessel.

Art. 6.—On receipt of this declaration, the appointed authority will proceed, at the expense of the captain, to inspect and measure the vessel. The Consular authority interested in the ship may be present at this inspection.

The inspection need not be performed if the captain is already furnished with an official certificate of measurement, unless it is believed that this document no longer corresponds to the actual state of the vessel.

Art. 7.—The appointed authority must not permit the departure of a pilgrim ship until he has satisfied himself:

- (a) That the ship has been thoroughly cleaned and, if necessary, disinfected.
- (b) That the ship is in a condition to undertake the voyage without danger, that she is properly manned, equipped and ventilated, and provided with a sufficient number of boats; that there is on board nothing that is, or is likely to become, injurious to the health or safety of the passengers, and that the upper and lower decks are of wood, or of iron sheathed in wood.

* The appointed authority is: in British India, an officer appointed on this behalf by the Local Government (Native Passenger Ships Act, 1887, article 7); in the Dutch Indies, the captain of the port; in Turkey, the sanitary authority; in Austro-Hungary, the port officer; in Italy, the captain of the port; in France, Tunis and Spain, the sanitary authority; in Egypt, the sanitary, quarantine, etc., authority.

- (c) That there is on board, properly stowed away, over and above the rations for the crew, sufficient food and fuel for all the pilgrims, during the declared duration of the voyage.
- (d) That the drinking-water is of good quality and from a source protected from contamination; that it is in sufficient quantity; that the tanks for drinking-water are safe from all contamination and so closed that the distribution of water can only be made by taps or pumps.
- (e) That the vessel carries a condenser, capable of distilling a minimum quantity of 1 gallon of water per diem, for every person on board, including crew.
- (f) That the ship possesses a disinfecting stove, certified to be safe and efficacious.
- (g) That, in accordance with the rules laid down in articles 11 and 23, the vessel carries a diplomaed and licensed doctor,* appointed either by the Government of the country to which she belongs or by the Government of the port where the pilgrims embark, and that she carries medical stores.
- (h) That the deck is free from merchandise and all encumbrances.
- (i) That the arrangements on board are such as to allow of the measures prescribed in section III being carried out.

Art. 8.—The captain will cause notices, in the languages commonly spoken by the pilgrims, to be posted up in a conspicuous place, accessible to all concerned, showing:—

- (1) the destination of the ship;
- (2) the daily ration of food and water allowed to each pilgrim;
- (3) the price of articles not included in the daily ration, which can be procured on extra payment.

Art. 9.—The captain must not start without having in his possession—

- (1) a list, countersigned by the appointed authority, showing the name, sex, and total number of pilgrims he is authorised to carry;
- (2) a bill-of-health, stating the name, nationality and tonnage of the ship, the name of the captain and of the doctor, the exact number of persons embarked—crew, pilgrims and other passengers—the nature of the cargo and the port of departure.

The appointed authority will note on the certificate whether or not the authorised number of pilgrims has been embarked, and, in

* Except in the case of Governments without licensed doctors.

the latter case, the additional number of passengers the vessel is authorised to embark at subsequent ports of call.

Art. 10.—The appointed authority will take stringent measures to prevent the embarkation of any suspicious person or article,* in accordance with the rules laid down for precautions to be taken in ports.

SECTION III.—*Precaution to be taken on the voyage.*

Art. 11.—Every ship embarking pilgrims should have on board a licensed doctor, appointed by the Government of the country to which the ship belongs, or by the Government of the port where the pilgrims are embarked. A second doctor should be carried when the number of pilgrims exceeds 1,000.

Art. 12.—The doctor must inspect the pilgrims, tend the sick, and see that sanitary rules are observed on board.

He must, in particular—

- (1) satisfy himself that the rations issued to the pilgrims are of good quality, and of the quantity agreed on, and that they are properly cooked ;
- (2) satisfy himself that the rules in article 20, regarding the distribution of water, are observed ;
- (3) if not satisfied as to the quality of the drinking-water, call the attention of the captain, in writing, to the rules in article 21 ;
- (4) satisfy himself that the vessel is always kept clean, and particularly that the latrines are cleaned out, in accordance with the directions in article 18 ;
- (5) satisfy himself that the pilgrims' quarters are kept healthy, and, in case of the occurrence of infectious disease, that disinfection is carried out in the manner prescribed in article 19 ;
- (6) keep a diary of all sanitary matters during the voyage and submit this diary to the appointed authority at the port of arrival.

Art. 13.—The vessel must be capable of accommodating the pilgrims in the between decks.

Over and above the space required for the crew, the ship must contain at least *sixteen superficial feet and a height between decks of at least six feet* of space available for each person irrespective of age. In coasting vessels, each pilgrim must be allowed a space at least *six-and-a-half feet wide* along the gunwales.

* See Chapter IV, section 2, articles 1 and 2 of this Convention.

Art. 14.—During the voyage the deck must be kept free from encumbrances ; it must be reserved, night and day, for the passengers, and, placed without charge, at their disposal.

Art. 15.—The heavy baggage of the pilgrims must be registered, numbered and placed in the hold. Pilgrims may only keep with them such articles as are absolutely necessary.

The nature, quantity and dimensions of such articles will be decided by each Government, for its own ships.

Art. 16.—The between decks must be carefully washed and rubbed with dry sand, mixed with disinfectants, every day while the pilgrims are on deck.

Art. 17.—On each side of the ship, on deck, a place should be set apart, screened from view and provided with a hand-pump, to supply sea-water, for the use of the pilgrims. One such place should be exclusively reserved for women.

Art. 18.—The ship must be provided, in addition to the latrines for the crew, with water-closets in a minimum proportion of one per hundred passengers. Some latrines must be reserved for women.

No closets must be allowed between decks or in the hold. The latrines allotted to the passengers, as well as those of the crew, must be kept clean, and should be flushed and disinfected three times a day.

Art. 19.—The ship must be disinfected in accordance with the instructions in paragraphs 5 and 6 of Chapter III of the annexure to this Convention.

Art. 20.—At least 8 gallons of drinking-water must be issued daily to each pilgrim, irrespective of age, free of charge.

Art. 21.—If there is any doubt as to the quality of the drinking-water, or as to the possibility of its pollution either at its source or during the voyage, it must be boiled or otherwise sterilised, and the captain is responsible for seeing that it is thrown overboard, at the first port of call, where it is possible to procure a purer supply.

Art. 22.—The ship must have two cabooses or cooking ranges provided for the use of the pilgrims. The pilgrims should be forbidden to light fires elsewhere, especially on the deck.

Art. 23.—Each ship must carry such medicines and medical stores as are necessary for the treatment of the sick. The rules drawn up for pilgrimships, by each Government, will determine the nature and quantity of such stores. Attendance and medicines must be provided for the pilgrims free of charge.

Art. 24.—A hospital properly fitted up, and constructed with due attention to health and safety, must be reserved for the accommodation of the sick. It should be capable of accommodating at least 5

per cent. of the pilgrims on board, and should provide for each patient a space of 32 square feet.*

Art. 25.—The ship must be provided with the means of segregating persons attacked by plague.

The persons charged with the care of plague patients may alone have access to them, and the sick must not be brought into contact with the other passengers.

All bedding, carpets and clothes which have been in contact with the sick should be immediately disinfected.

The observance of this rule is specially enjoined in the case of the clothes of persons attending the sick, which may have been contaminated.

Those of the abovementioned articles which are not valuable should be thrown overboard, if the ship is not in harbour or in a canal, or else burnt.

Other articles should be carried to the stove in impermeable bags washed in a solution of corrosive sublimate.

The excreta of patients must be received in vessels containing a disinfecting solution. These vessels should be emptied into the latrines, which must be rigorously disinfected after each discharge of matter.

* The Conference having learned the nature of the hospital accommodation which must be provided in accordance with rule 53 of the rules framed under the Pilgrim Ships Act by the Government of India, recommend their adoption in substitution for article 24.

Extract:—

The hospital accommodation shall be provided on the upper deck either in the poop or in a deck-house. A permanent hospital shall be provided containing not less than six bunks, and having a deck area of at least 144 superficial feet and dimensions of not less than 86½ cubic feet. On every pilgrim ship on which there are 50 or more female pilgrims, there shall be a separate permanent hospital, containing not less than two bunks with a deck area of at least 72 superficial feet and dimensions of not less than 288 cubic feet, which shall be reserved for the use of women and children under 12 years of age. The hospitals shall be lighted and ventilated to the satisfaction of the Inspector and shall be provided with permanent raised floors or platforms at least 4 inches off the deck. They shall be made as secure as any other deck-house, and the roof shall be well caulked and covered with painted canvas. No case of small-pox, cholera, yellow fever or plague shall on any account be treated in a permanent hospital.

Materials shall be carried for the construction on the upper deck of a separate temporary hospital for the treatment of such cases of sickness as it may be considered desirable specially to segregate (such as small-pox, cholera, yellow fever or plague). The part of the upper deck upon which such hospital shall, if required, be erected shall be pointed out by the Inspector. It shall be constructed on the same principles as the permanent hospital, and the superficial area of the floor shall not be less than 144 square feet.

The patients' quarters must be rigorously disinfected.

The disinfection must be carried out in accordance with paragraph 5, Chapter III of this Convention.

Art. 26.—In the event of a death occurring during the voyage, the captain must enter the fact opposite the name of the deceased, on the list countersigned by the appointed authority at the port of departure, and must also enter in the log the name of the deceased, age, place of residence, supposed cause of death according to the medical certificate, and date of death.

In the event of a death from infectious disease, the corpse, wrapped in a shroud, impregnated with a solution of corrosive sublimate, must be thrown into the sea.

Art. 27.—The bill-of-health given at the port of departure must not be altered during the voyage.

It must be countersigned at each port of call by the sanitary authorities, who should enter—

- (1) the number of passengers disembarked or embarked at the port;
- (2) anything that has happened at sea affecting the life or health of the passengers;
- (3) the sanitary condition of the port of call.

Art. 28.—At each port of call, the captain must cause the list drawn up in accordance with article 9 to be countersigned by the appointed authority.

In the event of a pilgrim disembarking during the voyage, the captain must note the fact on the list, opposite the pilgrim's name.

In the case of persons embarking, their names must be entered on the list in accordance with article 9. This must be done previously to the list being countersigned by the appointed authority.

Art. 29.—The captain must see that all sanitary preventive measures taken during the voyage are entered in the log. This document is to be submitted by him to the appointed authority at the port of arrival.

Art. 30.—The captain must pay all sanitary charges, which should be included in the price of the tickets.

SECTION IV.—*Penalties.*

Art. 31.—Any captain convicted of a breach of his contract for the supply of water, food or fuel, will be liable to a fine of 2 pounds Turkish.* This fine will be paid to the pilgrim who has suffered

* A Turkish pound is of the value of 22½ francs.

from the breach of contract on proof that he demanded its fulfilment without effect.

Art. 32.—Any infraction of article 8 is punishable by a fine of 30 pounds Turkish.

Art. 33.—Any captain, who commits, or knowingly allows to be committed, any fraud with respect to the list of pilgrims, or of the bill-of-health prescribed in article 9, is liable to a fine of 50 pounds Turkish.

Art. 34.—Any captain arriving without a bill-of-health from the port of departure, or without its being countersigned at the ports of call, or being unprovided with the prescribed list, duly kept up according to articles 9, 27 and 28, is liable, in each case, to a fine of 12 pounds Turkish.

Art. 35.—Any captain convicted of having or of having had, on board, more than 100 pilgrims, without the presence of a licensed doctor, in accordance with the rule in article 11, is liable to a fine of 300 pounds Turkish.

Art. 36.—Any captain convicted of having or of having had, on board, more pilgrims than he was authorised to carry, in accordance with the rules in article 9, is liable to a fine of 5 pounds Turkish for each pilgrim in excess of the authorised number.

The disembarkation of the pilgrims in excess of the authorised number must be effected at the first station where there is an appointed authority, and the captain must provide the pilgrims so disembarked with sufficient money to enable them to reach their destination.

Art. 37.—Any captain convicted of having disembarked pilgrims at a place other than their destination, unless with their consent, or from unavoidable cause, is liable to a fine of 20 pounds Turkish for each pilgrim thus disembarked.

Art. 38.—All other infractions of the present rules are punishable by a fine of from 10 to 100 pounds Turkish.

Art. 39.—Any offence reported during the voyage should be entered in the bill-of-health, and in the list of pilgrims. The appointed authority will submit an official report on the offence to the proper authorities.

Art. 40.—In Turkish ports the offence is tried before and the fine imposed by the appointed authority, in accordance with the rules in Chapter V of this Convention.

Art. 41.—All agents required to assist in the execution of these rules are liable to punishment for any breach of them, according to the laws of their respective countries.

Art. 42.—These rules must be posted up in the language of the nationality of the ship, and in the languages commonly spoken by the pilgrims, in a conspicuous and accessible place, on board every pilgrim ship.

III.

MEASURES TO BE TAKEN TO PREVENT THE IMPORTATION OF PLAGUE.

(1) BY LAND.

The measures to be taken, on land, with respect to travellers and goods from regions infected with plague, should conform to the sanitary principles laid down in this Convention. Modern methods of disinfection should be substituted for land quarantine.

For this purpose stoves and other means of disinfection should be established at selected posts on the routes followed by travellers. Similar methods should be adopted on railways, constructed or in course of construction. Merchandise should be disinfected according to the principles adopted by this Convention.

Each Government is at liberty to close its frontiers to passengers and goods.

(2) BY SEA.

A.—MEASURES TO BE TAKEN IN THE RED SEA.

Art. 1.—*Healthy ships.*—(a) After the medical inspection, ships passed as healthy, will be allowed to proceed at once, whatever the nature of their bill-of-health.

The ship must, however, have completed, or must complete, ten full days from the date of departure from the last infected port at which she has touched.

The only treatment the authorities of the port of arrival may apply to such ships, consists in the measures prescribed for suspected ships (medical inspection, disinfection of soiled linen, pumping out the bilge-water, and substituting good drinking-water for that stored on board).

(b) *Ordinary healthy ships* will be allowed to pass through the Suez Canal, in quarantine. They will complete in the Mediterranean the ten days' period of observation. Ships carrying a doctor and a stove will not be disinfected before the passage in quarantine.

Art. 2.—*Suspected ships.*—*Suspected ships* are those on board which there have been cases of plague at the time of departure, or during the voyage, but no new case for 12 days. Such ships will be

treated in a different manner according as to whether or not they have on board a doctor and disinfecting apparatus (stove).

(a) Ships having a doctor and disinfecting apparatus (stove) fulfilling the required conditions, will be allowed to pass through the Suez Canal, in quarantine, in accordance with the rules prescribed for the passage.

(b) *Suspected* ships, having neither doctor nor disinfecting apparatus (stove) on board, will, before being allowed to pass through the Canal in quarantine, be detained at Moses' Wells for the time necessary to disinfect soiled linen, personal linen and other susceptible articles, and to ensure that the ship is in a sanitary condition.

Passage in quarantine will be permitted in the case of a mail boat, or steamer specially adapted for passengers without a disinfecting apparatus (stove), but with a doctor on board, if the local authority is satisfied by an official statement, that sanitary measures and measures of disinfection have been properly carried out, either at the time of departure, or during the voyage.

Free pratique may be given at Suez, after disinfection, in the case of mail boats or steamers specially adapted for passengers without a disinfecting apparatus (stove) but with a doctor on board, if the last case of plague took place more than 14 days before the date of arrival and if the sanitary state of the ship is satisfactory.

In the case of a steamer having a healthy passage of less than 14 days, passengers for Egypt will be disembarked at Moses' Wells and isolated for the time necessary to complete ten days; their soiled linen and personal effects being disinfected. They will then obtain *free pratique*. Steamers having a healthy passage of less than 14 days and requiring *free pratique* for Egypt will be detained at Moses' Wells for the time necessary to complete ten days; they will undergo the prescribed disinfection.

Art. 3.—Infected ships, that is to say, those with plague on board, or on which cases have occurred within 12 days. These are divided into ships with a doctor and disinfecting apparatus (stove), and those without a doctor, and without a disinfecting apparatus (stove).

(a) *Ships without a doctor and a disinfecting apparatus (stove)* will be detained at Moses' Wells and persons suffering from plague will be disembarked and isolated in a hospital. The disinfection will be thoroughly carried out. The other passengers will be disembarked, and isolated in as small groups as possible, so that if plague breaks out in one group, the whole party will not be affected.

The soiled linen, personal effects and clothes of the crew and passenger, and the ship, will be disinfected.

It is to be understood that this does not require the discharge of the cargo, but only the disinfection of that part of the ship which has been infected.

The passengers will remain ten days at the quarantine station at Moses' Wells; when the cases of plague have occurred several days previous to arrival, the term of isolation will be diminished and will vary according to the date of the occurrence of the last case.

Thus if the last case occurred 9, 10, 11 or 12 days before arrival, the term of observation will be 24 hours; if it took place 8 days before arrival, the observation will be for 2 days; if it took place 7 days before arrival, it will be for 3 days; and so on according to the table given below.

(b) *Ships with a doctor and disinfecting apparatus (stove).*—Ships with a doctor and disinfecting apparatus will be detained at Moses' Wells.

The ship's doctor will state, on oath, what persons on board are suffering from plague. These patients will be disembarked and segregated.

After their disembarkation, the soiled linen of the other passengers and of the crew will be disinfected on board.

If the plague has only attacked the crew, the disinfection will be confined to the soiled linen and bedding of the crew.

The ship's doctor will also declare, on oath, the portion or compartment of the ship occupied by the patient or patients, and the section of the hospital to which they were removed.

He will also state, on oath, what persons have been in contact with the plague patients, since the appearance of the malady, either directly or by contact with objects capable of transmitting infection. These persons only will be considered as *suspected*.

The part or compartment of the ship, and the section of the hospital in which the patients have been located, will be thoroughly disinfected. By "the part of the ship" is meant the cabin of the patient, the adjoining cabins, the passage to these cabins, the deck, and the parts of the ship in which the patient or patients have been lying.

If it is impossible to disinfect the part or the compartment of the ship, which has been occupied by persons attacked by the plague, without disembarking the persons declared to be *suspected*, these persons will either be put on another ship specially set apart for this purpose, or will be disembarked and detained in the quarantine buildings, but not in contact with the patients, who will be placed in the hospital.

The duration of this detention on board, or on land, for the purpose of disinfection, will be as short as possible, and must not exceed 24 hours.

The *suspected* persons will be kept under observation either on their own ship, or on a ship provided for this purpose; the duration of this observation will vary according to the following table:—

When the last case of plague occurred on the 12th, 11th, 10th or 9th day before arrival at Suez.	} The observation will be for 24 hours.
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If it has occurred on the 8th day before arrival at Suez ...	2	days.
" " " 7th " " " " " " " " " " " "	3	"
" " " 6th " " " " " " " " " " " "	4	"
" " " 5th or 4th day " " " " " " " " " " " "	5 or 6	"
" " " 3rd or 2nd " " " " " " " " " " " "	7 or 8	"
" " " 1st day " " " " " " " " " " " "	9	"

Passage in quarantine may be permitted before the expiration of the periods stated in the above table, if the sanitary authority deems it possible; it will, in any case, be permitted on the completion of the disinfection, if the ship leaves behind, in addition to the sick, the persons classed above as *suspected*.

A pontoon, with a stove on board, may be brought alongside the ship to hasten the process of disinfection.

Infected ships seeking *free pratique* in Egypt will be detained for ten days at Moses' Wells, dating from the last case on board, and will undergo the prescribed disinfection.

The time taken in disinfecting is included in the term of observation.

Organisation for carrying out the measures of observation and disinfection at Suez and at Moses' Wells.

1. The medical inspection, prescribed by the regulations, of every ship arriving at Suez will be made by one of the doctors of the station. Arrivals from infected ports will be inspected by day.

2. There will be seven doctors—a Principal Medical Officer, four doctors and two assistants. Should this medical staff be found insufficient, the services of the naval doctors of the different Powers will be utilised, under the orders of the Principal Medical Officer of the sanitary station.

3. The medical officers must have a regular diploma, and should be selected from amongst those who have gone through a special course of epidemiology and bacteriology.

4. They will be appointed by the Minister of the Interior on the recommendation of the Sanitary, Maritime, and Quarantine Board of Egypt.

5. The pay of the assistants will be at the rate of 6,000 francs a year, the pay of the four doctors will be at the rate of 8,000 francs a year, rising to 12,000 francs, and the pay of the Principal Medical Officer will rise from 12,000 to 15,000 francs.

6. The disinfecting and quarantine station of Moses' Wells is under the authority of the Principal Medical Officer at Suez.

7. When patients are disembarked at this place, two of the Suez doctors will be posted there, one to tend the plague patients, the other to tend persons not suffering from the plague.

8. The number of sanitary guards will be 20. One of them will be in special charge of the disinfecting apparatus at Moses' Wells.

9. The disinfecting and quarantine station of Moses' Wells will be provided with—

(1) At least three disinfecting stoves, of which one will be placed on board a pontoon.

(2) A new segregation hospital containing 12 beds, for the sick and *suspected*.

This hospital will be so arranged that the sick and *suspected*, and men and women, can be separately segregated.

(3) Barracks, hospital tents, and ordinary tents, for the use of the persons disembarked.

(4) A sufficient number of baths and washing-places.

(5) The buildings required for the usual offices, the medical staff, the guards, etc.; a magazine and a laundry.

(6) A reservoir for the water-supply.

The passage, in quarantine, of the Suez Canal.

1. Permission to pass the Canal in quarantine is granted by the sanitary authority at Suez; the Board must be immediately informed when such permission is given. In doubtful cases, the decision rests with the Board.

2. A telegram must be at once sent to the authority appointed by each Power. The telegram will be sent at the expense of the ship.

3. Each Power will prescribe penal rules for those vessels, which depart from the course declared by the captain, and enter without license one of the ports of that Power. Exception will be made in the case of absolute necessity or if the vessel is compelled to put into port for shelter.

On arrival the captain must declare if he has on board gangs of native stokers, or hired servants, of any description, not included in the roll of the crew, or the register kept for the purpose. The following questions will be put to the captains of all ships arriving at Suez from the south and must be answered on oath:—

Have you any supernumeraries, stokers or other hands not included in the ship's roll or in the special register?

What is their nationality?

Where did you embark them?

The sanitary doctors must satisfy themselves as to the presence of these supernumeraries, and if they find that any of their number are missing, they must inquire carefully into the cause of their absence.

4. A sanitary officer and two sanitary guards will go on board, and accompany the ship as far as Port Said; their duty is to prevent communication, and to see to the execution of the measures prescribed for the passage of the Canal.

5. Passengers may embark at Port Said, in quarantine, but all embarkation and disembarkation, and all transfer of passengers or cargo, is forbidden during the passage of the Canal from Suez to Port Said.

6. Ships passing, in quarantine, must make the journey from Suez to Port Said without trying up.

In case of the vessel running aground, or being compelled to tie up, the necessary operations must be carried out by the staff of the ship, all communication with the staff of the Suez Canal Company being avoided:

Transports passing through in quarantine must do so only by day.

If they are compelled to pass a night in the Canal, they must anchor in Lake Timsah.

7. Ships passing in quarantine are forbidden to stop at Port Said, except in the cases provided for in paragraphs 5 and 8. The operation of revictualling must be carried out with the means on board.

All stevedores and other persons who have come on board the ship will be isolated on the quarantine pontoon. Their clothes will there undergo the prescribed disinfection.

8. When it is absolutely necessary for ships, passing in quarantine, to coal at Port Said, they must do so at a place, to be fixed by the Sanitary Board, where the necessary isolation and sanitary supervision can be secured. When effective supervision is possible, and all contact with the people on board can be avoided, the coaling may be

done by the labourers of the port. At night the place must be lighted by the electric light.

9. The pilots, electricians, agents of the company and sanitary guards will be disembarked at Port Said, outside the port, between the jetties, and from thence will be taken direct to the quarantine pontoon, where their clothes will be thoroughly disinfected.

Measures to be taken in the case of ships arriving in Egypt from an infected port by way of the Mediterranean.

1. Ordinary *healthy* ships, coming from a European or Mediterranean infected port, wishing to pass the Suez Canal, will be allowed to do so in quarantine. They will continue their voyage, remaining under observation for ten days.

2. Ordinary *healthy* ships, wishing to land in Egypt, can put in at Alexandria or Port Said, where the passengers will complete the period of observation, either on board, or in the Lazaretto of Gabari, as the local sanitary authority may direct.

3. The measures to be taken as regards *infected* and *suspected* ships, coming from an infected European or Mediterranean port, and desiring to call at an Egyptian port, or to pass the Suez Canal, will be settled by the Sanitary Council, in accordance with the regulation adopted by this Convention.

These measures must, before they can be carried out, be accepted by the different Powers represented on the Board. They will regulate the conditions to be imposed with regard to ships, passengers and goods.

The Board will, similarly, submit to the Powers a code of rules dealing with cholera.

These two codes should be submitted as soon as possible.

Sanitary supervision of Pilgrims in the Red Sea.

Sanitary rules for pilgrim ships from infected ports in the (re-organised) sanitary station of Kamaran.

Pilgrim ships coming from the south, and bound for the Hedjaz, will be detained at the sanitary station of Kamaran, and then undergo the following treatment:—

Ships declared *healthy* will, after medical inspection, and on completion of the operations detailed below, be given *free pratique*.

The pilgrims will be disembarked, they will wash or take a bath in the sea; their soiled linen, and any portion of their personal

effects or baggage, open, in the opinion of the sanitary authority, to the suspicion of being contaminated, will be disinfected. The duration of these operations, including the disembarkation, and embarkation, should not exceed 72 hours. If no case of plague is reported during the operations, the pilgrims will be re-embarked immediately, and the ship will proceed to the Hedjaz.

Suspected ships, that is to say, those which have had a case of plague on board, at the time of departure or during the voyage, but no fresh case for 12 days, will be treated as follows: the pilgrims will be disembarked; they will wash or take a bath in the sea; their soiled linen, and any portion of their personal effects or baggage, open, in the opinion of the sanitary authority, to the suspicion of being contaminated, will be disinfected, the bilge-water will be pumped out; and the parts of the ship inhabited by the sick will be disinfected.

The duration of these operations, including the disembarkation and embarkation, should not exceed 72 hours. If no case of plague is reported during the operations, the pilgrims will be immediately re-embarked, and the ship will proceed to Jeddah, where a second medical inspection will take place on board. If the result is favourable, and the ship's doctor declares on oath that there has been no case during the passage, the pilgrims will be at once disembarked.

If, on the contrary, any cases of plague have occurred during the voyage or on arrival, the ship will be sent back to Kamaran, where she will undergo the treatment for *infected ships*.

Infected ships, that is to say, those having cases on board, or having had them within 12 days, will undergo the following treatment:—

The plague patients will be disembarked and segregated in the hospital. The disinfection will be thoroughly carried out. The other passengers will be disembarked and isolated, by groups, as small as possible, so that if the plague breaks out in one group, the whole party will not be affected.

The soiled linen, the personal effects, and the clothes of the crew and passengers and the ship, will be disinfected.

The local sanitary authority will declare if the discharge of the heavy baggage and cargo is necessary, and if the whole ship must be disinfected, or a portion only.

The passengers will remain at Kamaran for 12 days; when the cases of plague occurred several days before arrival, the period of isolation may be diminished and it may vary according to the date of occurrence of the last case, and the orders of the sanitary authority.

The ship will then proceed to Jeddah, where a strict individual medical examination will take place on board. If the result is satisfactory, the pilgrims will be disembarked. If, on the other hand, plague has appeared during the voyage, or on arrival, the ship will be sent back to Kamaran, where she will again undergo the treatment for *infected* ships.

Improvements to be made in the station of Kamaran.

A.—Complete evacuation of the Island of Kamaran by its inhabitants.

B.—Measures to ensure safety, and to facilitate navigation in the bay of the Island of Kamaran :—

1. Provision of buoys and beacons in sufficient numbers.
2. Construction of a principal mole or quay for the disembarkation of passengers and baggage.
3. A separate pier for the embarkation of the pilgrims of each encampment.
4. A steam-tug and sufficient barges for the disembarkation and embarkation of the pilgrims. The disembarkation of pilgrims from *infected* ships will be carried out with the appurtenances on board.

C.—The establishment of a sanitary station, which should contain—

1. A system of railways, connecting the wharves with the headquarters of the administration, the places for disinfection, and the places where the different offices and encampments are situated.
2. Quarters for the administration and for the staff employed in the sanitary and other offices.
3. Buildings for the disinfection and washing of wearing apparel and other articles.
4. Buildings where the pilgrims can wash or take sea baths whilst their clothes are being disinfected.
5. Separate and completely isolated hospitals for both sexes :—
 - (a) For the observation of *suspected* persons.
 - (b) For plague patients.
 - (c) For patients suffering from other contagious diseases.
 - (d) For ordinary patients.
6. The encampments should be completely separated from each other, the distance between them being as great as possible; the pilgrims' quarters should be constructed on the most approved sanitary principles, and must not contain more than 25 persons each.

7. A well situated cemetery, distant from all habitations, free from sub-surface water, and drained 20 inches below the level of the graves.

D.—Sanitary appliances :—

1. Steam disinfectors in sufficient number, constructed with due regard to safety, efficacy and rapidity.

2. Cinerators, disinfecting stoves and the necessary appliances for chemical disinfection, as described in Chapter III of the annexure to this Convention.

3. Condensing machines ; apparatus for the sterilization of water by heat ; ice machines.

A system of pipes and reservoirs for the distribution of drinking-water, which should be closed, and only capable of being used by means of taps or pumps.

4. A bacteriological laboratory with the necessary staff.

5. An arrangement of portable vessels for the reception of fæcal matter after disinfection. Sewage farms for the disposal of fæcal matter on the part of the island most distant from the encampments, arranged with due regard to their proper sanitary working.

6. An arrangement for the removal of dirty water from the encampments, which must prevent its stagnation and its use for drinking purposes. The dirty water of the hospitals should be disinfected with slaked lime, according to the instructions contained in Chapter III of the annexure to this Convention.

E.—The provision by the sanitary authority in each encampment of a store for food and fuel.

The tariff of prices fixed by the appointed authority should be hung up in several places in the encampment, in the languages commonly spoken by the pilgrims.

The doctor of the encampment will be responsible for the daily control of the quality and quantity of the provisions.

Water should be provided free of charge.

Improvements to be made in the sanitary stations of Abu-Saïd, Vasta, and Abu-Ali.

1. Erection of two plague hospitals, for men and women, at Abu-Ali.

2. Erection at Vasta of a hospital for ordinary cases.

3. Construction at Abu-Saïd and Vasta of masonry barracks, capable of containing 50 persons each.

4. Three disinfecting stoves to be placed at Abu-Saïd, Vasta and Abu-Ali, with laundries and accessories.

5. Washing places to be provided at Abu-Saïd and Vasta.

6. Condensers to be provided on each of the islands of Abu-Saïd and Vasta, capable of distilling 15 tons of water per diem.

7. The rules for cemeteries, fœcal matter, and dirty water, will be the same as for Kamaran. A cemetery should be provided on one of the islands.

The rules with regard to the supply of food and water at Kamaran prescribed under heading E above will be applied to the encampments of Abu-Saïd, Vasta and Abu-Ali.

It is desirable that the arrangements at Abu-Saïd, Vasta and Abu-Ali should be completed as soon as possible:

Reorganisation of the sanitary station of Jebel-Tor.

The Conference confirms the recommendations and views expressed on previous occasions and leaves to the Sanitary Board the duty of carrying out the improvements. The Conference also considers—

1. That it is necessary to supply the pilgrims with good drinking-water, either from a local source or by distillation.

2. That it is desirable that all food imported by pilgrims from Jeddah and from Yembo, when there is plague in the Hedjaz, should be disinfected as a suspected commodity, or completely destroyed, if it appears to have deteriorated so as to have become dangerous.

3. That steps should be taken to prevent pilgrims bringing with them leather bottles from Jebel-Tor. They should be replaced by earthenware vessels or by metal cans.

4. That each section should be provided with a doctor.

5. That a Port Officer should be posted at El-Tor to superintend embarkation and disembarkation, and to see that the rules are observed by the captains and sarangs of the vessels.

6. That during the pilgrim season, only pilgrims should be detained in observation at Jebel-Tor.

7. That the village of Kouroum should be evacuated.

8. That the encampment of Jebel-Tor should be connected by telegraph with the sanitary station of Suez.

Rules for the Arabian Ports of the Red Sea during the Pilgrim season.

Sanitary Rules to be applied to Pilgrim Ships coming from the North.

(1) The outward voyage.

If plague is not reported to exist at the port of departure or in its neighbourhood, and if no case has occurred during the voyage, the ship is immediately given *free pratique*.

If the plague is reported to exist at the port of departure, or in its neighbourhood, or if a case has occurred during the voyage, the ship will be subjected at Jebel-Tor to the rules prescribed for ships which come from the south and stop at Kamaran.

(2) *The Homeward voyage.*

Art. 1.—Any ship coming from a port of the Hedjaz or from any other port on the Arabian coast of the Red Sea, infected with plague having on board pilgrims or any similar collection of persons bound for Suez or for a Mediterranean port, must proceed to El-Tor, there to undergo the prescribed observation as detailed below.

The disembarkation and disinfection of passengers, baggage and susceptible goods will then be effected, as well as the disinfection of personal effects, and of the ship.

Art. 2.—Ships bringing back pilgrims will only be allowed to pass through the Canal in quarantine. Egyptian pilgrims after leaving El-Tor must disembark at Ras Mallap, or some other place appointed by the Sanitary Board, there to undergo three days' observation and a medical inspection, before being given *free pratique*.

In the event of a suspicious case occurring on board during the voyage from El-Tor to Suez, the ship will be repulsed to El-Tor.

Art. 3.—Agents of navigation companies and captains of ships are warned that, after the completion of the observation at the sanitary station of El-Tor and at Ras Mallap, only Egyptian pilgrims will be permitted to leave the ship, in order to return to their homes. Only pilgrims with a certificate of residence, issued by an Egyptian authority, and in accordance with the prescribed form, will be recognised as Egyptians or as residents of Egypt. Specimens of this form will be deposited with the consular and sanitary authorities of Jeddah and Yembo, where agents and ships' captains can inspect them.

Non-Egyptian pilgrims, such as Turks, Russians, Persians, Tunisians, Algerians, Moors, etc., may not, after quitting El-Tor, be disembarked in an Egyptian port. Navigation companies' agents and captains are, therefore, warned that the transshipment of non-Egyptian pilgrims, either at Tor, Suez, Port Saïd, or Alexandria, is forbidden.

Vessels having on board pilgrims belonging to the nationalities mentioned in preceding paragraph will be treated according to the rules for non-Egyptian pilgrims, and will not be permitted to enter any Egyptian Mediterranean port.

Art. 4.—If it is not reported that plague exists in the Hedjaz, or has existed during the pilgrimage, vessels will be subjected, at Jebel-Tor, to the rules prescribed at Kamaran for *healthy* ships.

The pilgrims will be disembarked; they will wash or take a sea-bath; their soiled linen, the portion of their personal effects and baggage, open, in the opinion of the sanitary authority, to the suspicion of contamination, will be disinfected; the duration of these operations, including the disembarkation and embarkation, should not exceed 72 hours.

If plague is reported to exist in the Hedjaz or to have existed during the pilgrimage, vessels will be subjected, at Jebel-Tor, to the rules prescribed at Kamaran for infected ships.

The plague patients will be disembarked, and isolated in the hospital. The disinfection will be thoroughly carried out.

The other passengers will be disembarked, and isolated by groups, as small as possible, so that if the plague breaks out in one group the whole party will not be affected.

The soiled linen, personal effects, and clothes of the crew and passengers, and the ship, will be disinfected.

The local sanitary authority will declare if the discharge of the heavy baggage and cargo is necessary, and if the whole ship must be disinfected, or a portion only.

All the pilgrims will be kept under observation for 12 full days, counting from the day on which the operation of disinfection was completed. If a case of plague occurs in any of the groups, the period of 12 days commences for that group from the day on which the last case in the group is reported.

Art. 5.—Ships coming from an infected port of the Hedjaz or from any other port on the Arabian Red Sea coast without having embarked pilgrims or any similar collection of persons and without having had any suspicious cases during the voyage, are placed in the category of ordinary *suspected* ships. They will be subjected to the preventive measures and treatment laid down for such ships.

If they are bound for Egypt, they will be kept under observation, at Mosès' Wells, for ten days, counting from the date of departure, and will, in addition, be subjected to all the measures laid down for *suspected* ships (disinfection, etc.), and will only be given *free pratique* after a favourable medical inspection.

It is to be understood that if these ships have had any suspicious cases during the voyage, they will be placed under 12 days' observation at Mosès' Wells.

Art. 6.—Caravans of Egyptian pilgrims must, before entering Egypt, undergo rigorous quarantine at El-Tor for 12 days; they will then be sent to Ras Mallap, and there kept under observation for 5 days, after which they will only be granted *free pratique* after a

Caravans of foreign pilgrims will, before returning home by land, be subjected to the same measures as Egyptian caravans, and must be accompanied by sanitary guards to the limits of the desert.

Caravans coming from the Hedjaz by way of Akabah or Moïla will be subjected, on arrival at the Canal, to medical inspection and disinfection of soiled linen and personal effects.

Art. 7.—(1). The trans-shipment of pilgrims is strictly forbidden in Egyptian ports.

(2) Ships coming from the Hedjaz or from an Arabian Red Sea port, with a clean bill-of-health, not having on board pilgrims or any similar collection of persons and on which no suspicious cases have occurred during the voyage, will be given *free pratique* at Suez, after favourable medical inspection.

Art. 8.—Ships leaving the Hedjaz with a clean bill-of-health, and having on board pilgrims bound for a port on the African coast of the Red Sea, may call at Suakin, there to undergo three days' observation, all passengers being disembarked and detained in the quarantine encampment.

Art. 9.—Caravans of pilgrims arriving by land will be subjected to medical inspection and disinfection at Moses' Wells.

Sanitary measures to be taken on the departure for the south of pilgrims from the ports of the Hedjaz.

The ports of embarkation should be provided with sufficient sanitary appliances to enable pilgrims returning to their homes to be subjected to measures similar to those which are enforced on the departure of pilgrims from ports beyond the Straits of Bab-el-Mandeb.

The application of these measures will be optional, that is to say that they need not be applied unless the consular authority of the country to which the pilgrims belong, or the doctor of the ship on board which they embark, considers it necessary.

B.—MEASURES TO BE TAKEN IN THE PERSIAN GULF.

1.—Sanitary rules for vessels entering the Persian Gulf.

Any ship with plague on board, or on board which one or more cases have occurred within 12 days, will be considered *infected*.

Any ship on board which there has been a case of plague at the time of departure, or during the voyage, but on which no fresh case has occurred for 12 days, will be considered *suspected*.

Any ship, even though coming from an infected port, which has had no death or case of plague on board, either before departure, during the voyage, or on arrival, will be considered as *healthy*.

Infected ships will be subjected to the following rules:—

- (1) The sick will be immediately disembarked and isolated.
- (2) The other persons on board should also, if possible, be disembarked and kept under observation, for a period varying according to the sanitary condition of the ship, and the date of the last case, but which must not exceed ten days.
- (3) The soiled linen and personal effects of the crew and passengers, which, in the opinion of the sanitary authority of the port should be considered as infected, will be disinfected, as also the ship, or the contaminated part of the ship.

A more thorough disinfection may be ordered by the local sanitary authorities.

Suspected ships will be subjected to the following measures:—

- (1) Medical inspection.
- (2) The soiled linen and personal effects of the crew and passengers, which, in the opinion of the local sanitary authority, may be regarded as contaminated, should be disinfected.
- (3) Disinfection of all parts of the ship which have been inhabited by patients or suspicious cases. A more thorough disinfection may be ordered by the local sanitary authority.
- (4) Pumping out the bilge-water after disinfection, and the substitution of good drinking-water for the water stored on board.
- (5) The crew and passengers should be kept under observation for a period of ten days, commencing from the date of the last case on board.

Healthy ships will be given *free pratique* at once, irrespective of the nature of the bill-of-health.

Such ships must, however, in all cases, have completed, or must complete, ten full days from the date of departure from the last infected port at which they have touched.

The only measures the authority of the port of arrival may apply to *healthy* ships are those prescribed for *suspected* ships (medical inspection, disinfection, pumping out the bilge-water, and the substitution of good drinking-water for the water stored on board).

It is to be understood that the appointed authority of the port of arrival may always demand a declaration on oath from the doctor, or failing him, from the captain, that there has been no case of plague on the ship since her departure.

In deciding on the extent to which effect is to be given to the measures prescribed above, the authorities of the port should take into consideration the fact that there is a doctor or a disinfecting apparatus (stove) on board the ships coming under the three headings mentioned above.

Special measures may be prescribed for ships in an insanitary condition.

Goods arriving by sea should be treated in the same way as goods transported by land, as regards disinfection, prohibition of import, transit, and quarantine.

Any ship objecting to submit to the obligations imposed by the authority of the port is free to put back to sea.

The disembarkation of goods may be authorised after the following necessary precautions:—

- (1) Isolation of the ship, crew, and passengers.
- (2) Pumping out the bilge-water after disinfection.
- (3) Substitution of good drinking-water for the water stored on board.

The disembarkation of passengers wishing to land may also be authorised, on condition that they submit to the measures prescribed by the local authorities.

II.—Sanitary posts in the Persian Gulf.

There are two places in the Persian Gulf suitable for the establishment of sanitary posts—one in the Straits of Ormuz (the Island of Ormuz, the Island of Kishm, or, failing these, a place to be settled in their vicinity) ; the other at a place to be settled in the neighbourhood of Bassorah.

The sanitary post in the Straits of Ormuz should be provided with at least two doctors, sanitary officers and guards and appliances for disinfection. A small hospital should also be constructed.

A big lazaretto and apparatus for disinfecting goods should be constructed at the post near Bassorah with a medical staff of several doctors.

Before entering the Persian Gulf, ships must touch at the sanitary post in the Straits of Ormuz. They will there be subjected to the sanitary measures prescribed by the rules. If there are any plague cases on board, the sick will be disembarked.

Ships wishing to proceed at once up the Shatt-el-Arab will be permitted, if the period of observation is not completed, to continue their voyage, through the Persian Gulf and the Shatt-el-Arab in quarantine. A sanitary officer and two sanitary guards, taken on board at Ormuz, will keep a watch on the ship as far as Bassorah, where a second medical inspection will be made, and the necessary disinfection will be carried out.

Ships wishing to disembark passengers or goods at Persian ports will be permitted to do so at Bushire, when suitable sanitary arrangements have been made ; until then, they must land their passengers and goods at Ormuz or Bassorah.

It is to be understood that a *healthy* ship will be granted *free pratique* at the ports of the Persian Gulf ten days after the date of departure from the last infected ports at which she has touched, provided that she is shown to be healthy on arrival.

The sanitary posts at Ormuz and Bassorah will be under the control of the Constantinople Board of Health. The Ottoman and Persian Governments will come to an agreement with regard to the post at Ormuz.

Until the Ottoman and Persian Governments have arrived at this agreement, a sanitary post will be established as a temporary measure in one of the islands in the Straits of Ormuz, and the Board of Health will post doctors and sanitary guards at this place. These guards will accompany ships passing in quarantine up the Shatt-el-Arab to the post established in the neighbourhood of Bassorah.

The Constantinople Board of Health will also organise without delay sanitary posts at Khanikin and Kizil Dize, near Bayazid, on the Perso-Turkish and Russo-Turkish frontiers.

CHAPTER II.

Measures to be taken in Europe.

SECTION I.—*Measures to be taken to keep the Governments which are parties to the Convention acquainted with the existence of an epidemic of Plague, and with the means taken to prevent its spread and its importation into healthy countries.*

Notification and subsequent communications.

The Government of an infected country must notify to the other Governments the existence of all cases of plague. This measure is essential.

It will only be of real use, if the Government of the infected country is itself informed of cases of plague and suspicious cases occurring in its territory. It cannot, therefore, be too strongly impressed on the different Governments that doctors should be obliged to report all cases of plague.

The notification should state the existence of cases of plague, the places where they have occurred, the date of their appearance, the number of cases reported, and the number of deaths.

The notification should be made to the diplomatic or consular agents in the capital of the infected country. In the case of countries not represented there, the notification should be made, by telegram, direct to the foreign Governments.

This first notification should be followed by subsequent regular communications, with a view to keep the Governments informed of the

course of the epidemic. These communications should be made at least once a week.

The reports concerning the outbreak and course of the disease should be as complete as possible. They should, in particular, state the measures taken to check the spread of the epidemic and should give, in detail, the preventive measures adopted, with regard to—

sanitary or medical inspection ;

isolation ;

disinfection ;

and the measures prescribed with regard to the departure of ships, and the export of susceptible articles.

It is to be understood that neighbouring countries reserve to themselves the right to make special arrangements, with the object of organising an exchange of direct information between the principal administrative officers on their frontiers.

The Government of each country must publish, immediately, the measures which it decides to adopt with regard to arrivals from an infected country or local area.

The information must be at once communicated to the diplomatic or consular agent of the country affected, resident in the capital. In the absence, in the capital, of a diplomatic or consular agency, the communication should be made direct to the Government interested.

The withdrawal of the measures, or any modifications which may be made in them, must be communicated in the same manner.

SECTION II.—*Conditions under which a local area* is to be considered infected or healthy.*

Any area in which a case of plague has been officially reported to exist will be considered to be *infected*.

Any area in which plague has existed will cease to be considered as *infected* when it is officially reported that no death or fresh case of plague has taken place for ten days after the recovery or death of the last case, provided that the necessary disinfection has been carried out.

Preventive measures will be taken in the *infected* territory as soon as cases of plague are officially reported.

These measures will be discontinued as soon as it is officially stated that the area has again become *healthy*.

* A local area means a portion of the territory of a country placed under a recognised administrative authority, as, for instance, a province, a Local Government, a district, a department, a canton, an island, a commune, a town, a village, a harbour, an area reclaimed from the sea, etc., whatever may be the extent and population of the portion of territory.

It will not be necessary to apply these measures on the occurrence of a few imported cases if there is no diffusion of the malady.

SECTION III.—*Necessity of restricting to the infected local areas the measures taken to prevent the spread of the epidemic.*

The precautionary measures should be confined to the infected tract and the Governments concerned should only apply them to persons and goods from infected areas.

But the obligation to restrict precautions to the infected area exists only on the express condition that the Government of the *infected* country takes the necessary measures to prevent the exportation of susceptible articles derived from the *infected* area.

No restrictive measure should be enforced against persons and goods from an infected area, if they left it at least five days before the occurrence of the first case of plague.

SECTION IV.—*Goods and articles which may be considered "susceptible" with reference to the rules regarding the prohibition of import and transit, and the rules regarding disinfection.*

1.—Import and transit.

The following is a list of the susceptible articles and goods, the importation of which may be prohibited:—

1. Used linen, clothing, personal effects and bedding.

When these articles are carried as baggage, or in consequence of a change of abode (household goods) they are subjected to special treatment.

Soldiers' and sailors' kits, returned to their country, after their death, should be treated in the same way as the articles named above.

2. Rags, not excepting rags compressed by hydraulic force, which are carried as merchandise in bales.

3. Old sacking, carpets and old embroidery.

4. Raw hides, untanned and fresh skins.

5. Animals' refuse, claws, hoofs, horse hair, hair of animals generally, raw silk and wool.

6. Human hair.

The transit of susceptible goods or articles packed in such a way that they cannot be handled on the way should not be forbidden.

Similarly, when merchandise or susceptible articles are transported in such a manner that they cannot have come into contact with infected objects during the journey, their transit through an infected local area should not bar their importation into the country to which they are consigned.

The rules regarding the prohibition of the import of susceptible goods and articles will not be applied in cases where it is proved to the satisfaction of the appointed authority of the country to which they are consigned that they were despatched at least five days before the occurrence of the first case of plague.

Merchandise must not be kept in quarantine on land frontiers.

Absolute prohibition or disinfection are the only measures which may be taken.

II.—Disinfection.

Baggage.—Disinfection will be compulsory in the case of soiled linen, wearing apparel, clothes and articles carried as personal baggage or household goods, coming from a local area, declared *infected*, and which the local sanitary authority deems contaminated.

Merchandise.—Disinfection will only be enforced in the case of merchandise and articles which the local sanitary authority considers contaminated, or whose importation may be prohibited.

It rests with the authorities of the country to which the articles are consigned to settle the manner by which and place in which disinfection should be carried out.

The disinfection should be carried out so as to injure the articles as little as possible.

Each country will settle the question of the compensation to be paid for damages resulting from disinfection.

Letters and correspondence, printed matter, books, newspapers, business documents (not including parcels received through the post), should be subject to no restriction or disinfection.

SECTION V.—Measures to be taken on land frontiers. Railway traffic. Travellers.

Passenger carriages and mail and luggage vans should not be detained on the frontiers.

If a carriage is infected, it should be detached from the train to be disinfected, either at the frontier, or at the nearest stopping place, if this can be arranged.

Goods vans should be treated in the same way.

Land quarantine will no longer be enforced. Only persons presenting symptoms of plague should be detained.

This principle does not affect the right of each country to close, if necessary, any part of its frontiers.

The railway staff should keep a watch on the travellers' health.

Medical intervention will be confined to an inspection of the travellers, and the care of the sick.

Where there is a medical inspection, it will be combined, as far as is practicable, with the custom-house inspection, so as to detain the passengers as short a time as possible. On the arrival of travellers from an *infected* area at their destination, it will be found very desirable to keep them under supervision for 10 days, counting from the date of departure.

The measures to be taken in regard to the crossing of the frontiers by the railway, and the Post Office staff should be settled by the administrations concerned. They should be arranged so as not to interrupt the regular service.

Governments reserve to themselves the right to take special measures with regard to certain classes of people, especially—

A.—Gipsies and vagabonds.

B.—Emigrants and persons travelling or crossing the frontier in large bodies.

SECTION VI.—*Special rule for Frontier Tracts.*

The regulation of the frontier traffic, and of the questions involved in this traffic, as well as the adoption of exceptional measures of supervision, must be left to special arrangement between neighbouring countries.

SECTION VII.—*Water-ways, rivers, canals and lakes.*

The task of regulating by special arrangements the sanitary rules for water-ways must be left to the Governments of the countries bordering such water-ways.

SECTION VIII.—*Ocean traffic. Measures to be taken at ports.*

Any ship with plague on board, or on board which one or more cases have taken place within 12 days, will be considered *infected*.

Any ship on board which there has been a case of plague at the time of departure, or during the voyage, but on which no fresh case has occurred for 12 days, will be considered as *suspected*.

Any ship, even though coming from an infected port, which has had no death, or case of plague on board, either before departure, during the voyage, or on arrival, will be considered as *healthy*.

Infected ships are subject to the following rules:—

1. The sick will be immediately disembarked and isolated.
2. The other persons on board should also, if possible, be disembarked and kept under observation or surveillance * for a period

* *Note.*—The expression "observation" means isolation of the passengers, either on board a ship, or in a lazaretto till they have obtained *free pratique*. The expression "surveillance" means that the passengers will not be isolated; they will at once obtain *free pratique*, but on arriving at their destination they will be kept under medical surveillance.

varying according to the sanitary condition of the ship, and the date of the last case, but which must not exceed ten days.

3. The soiled linen and personal effects of the crew and passengers which, in the opinion of the sanitary authority of the port, may be considered as *infected*, will be disinfected.

4. The bilge-water will be pumped out after disinfection, and good drinking-water will be substituted for the water stored on board.

5. All parts of the ship which have been inhabited by plague patients should be disinfected. More thorough disinfection may be ordered by the local sanitary authority.

Suspected ships are subject to the following measures:—

(1) Medical inspection.

(2) Disinfection; the soiled linen and personal effects of the crew and passengers, which, in the opinion of the local sanitary authority, may be regarded as contaminated, should be disinfected.

(3) Pumping out the bilge-water after disinfection, and the substitution of good drinking-water for the water stored on board.

(4) Disinfection of all parts of the ship which have been inhabited by plague patients. More thorough disinfection may be ordered by the local sanitary authority.

It is recommended that a watch should be kept over the health of the crew and passengers for ten days from the date of arrival of the ship.

It is also recommended that the crew should not be allowed to land, except on duty.

Healthy ships will be given *free pratique* at once, irrespective of the nature of the bill-of-health.

The only measures which the authorities of the port of arrival may enforce with regard to such ships consist in those which are prescribed in the case of *suspected* ships (medical inspection, disinfection, pumping out the bilge-water, and the substitution of good drinking-water for the water stored on board), except that the measures prescribed for the disinfection of the ship itself may not be enforced in the case of *healthy* ships.

It is recommended that the crew and passengers should be kept under medical supervision for ten days from the date on which the ship left an infected port.

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It is to be understood that the appointed authority of the port of arrival may always demand a declaration, on oath, from the doctor

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(4) Disinfection of all parts of the ship which have been inhabited by plague patients. More thorough disinfection may be ordered by the local sanitary authority.

It is recommended that a watch should be kept over the health of the crew and passengers for ten days from the date of arrival of the ship.

It is also recommended that the crew should not be allowed to land, except on duty.

Healthy ships will be given *free pratique* at once, irrespective of the nature of the bill-of-health.

The only measures which the authorities of the port of arrival may enforce with regard to such ships consist in those which are prescribed in the case of *suspected ships* (medical inspection, disinfection, pumping out the bilge-water, and the substitution of good drinking-water for the water stored on board), except that the measures prescribed for the disinfection of the ship itself may not be enforced in the case of *healthy ships*.

It is recommended that the crew and passengers should be kept under medical supervision for ten days from the date on which the ship left an infected port.

It is also recommended that the crew should not be allowed to land except on duty.

It is to be understood that the appointed authority of the port of arrival may always demand a declaration, on oath, from the doctor

of the ship, or failing him, from the captain, that there has been no case of plague on the ship since her departure.

In deciding on the extent to which effect is to be given to the measures prescribed above, the authorities of the port should take into consideration the fact that there is a doctor, or a disinfecting apparatus (stove) on board the ships coming under the three headings mentioned above.

Special measures may be prescribed for crowded ships, particularly for emigrant ships, or any other ship which appears to be in an insanitary state.

Goods⁷ arriving by sea should be treated in the same way as goods arriving by land, as regards disinfection, prohibition of import, transit, and quarantine.

Any ship objecting to submit to the obligations imposed by the authority of the port will be free to put back to sea.

The disembarkation of goods may be authorised, after the following necessary precautions have been taken:—

- (1) Isolation of the ship, crew and passengers.
- (2) Pumping out the bilge-water after disinfection.
- (3) Substitution of good drinking-water for the water stored on board.

The disembarkation of passengers wishing to land may also be authorised on condition that they submit to the measures prescribed by the local authorities.

Each country should supply at least on port on each of its seaboard, with the organisation and equipment necessary to enable it to receive a ship, whatever its sanitary state.

Coasting vessels will be subject to special rules, to be drawn up conjointly by the countries concerned.

SECTION IX.—*Measures to be taken with regard to ships coming from an infected port and ascending the Danube.*

Until the town of Sulina is provided with good drinking-water, the sanitary condition of ships ascending the river will be subject to thorough sanitary supervision.

Overcrowding of passengers will be strictly forbidden.

Ships entering Roumania by the Danube will be detained for medical inspection, and until disinfection has been completed.

Ships arriving at Sulina must, before being permitted to ascend the Danube, undergo one or more medical inspections by day. Each morning, at a given hour the doctor will satisfy himself as to the state of health of all persons on the boat, and will not permit it to enter the

river, until he is assured that their condition is satisfactory. He will deliver, free of charge, to the captain or master, a sanitary passport, bill-of-health or certificate, the production of which will be demanded at the subsequent stations.

There will be a daily inspection. The detention at Sulina of *healthy* ships will not exceed six days. Contaminated clothes will be disinfected on arrival.

Drinking-water of good quality will be substituted for water of questionable quality that may be on board.

The bilge-water will be disinfected.

The measures above indicated will only be applied to arrivals from ports infected with the plague.

It is to be understood that a ship coming from a *healthy* port may, if it does not wish to submit to the restrictive measures indicated above, refuse to embark travellers from an infected port.

The rules for *suspected* and *infected* ships will be the same as at other European ports.

CHAPTER III.

Instructions regarding the method of disinfection.

1. Personal effects, rags, infected bandages, papers, and other articles without value should be destroyed by fire.

2. Under-clothing, bedding, wearing apparel, mattresses, carpets, etc., which are contaminated or *suspected* should be disinfected in stoves at *normal pressure, or at a pressure of from one-and-a-half to two degrees, with or without the presence of steam.*

Before a stove is passed as efficient for the purposes of disinfection, it should be subjected to a test, with the aid of a signal thermometer, showing the moment when the temperature in the middle of a mattress rises to at least 100° (Centigrade).

To ensure that the disinfection is effective, this temperature must be maintained for from 10 to 15 minutes.

3. Disinfecting solutions—

(a) Solution of corrosive sublimate, of 1 part in 1,000, with the addition of 10 parts of chloride of soda.

The solution should be coloured with aniline dye or indigo. It should not be placed in metal vessels.

(b) A 5 per cent. solution of pure crystallized carbolic acid, or 5 per cent. of *crude commercial carbolic acid, in a warm solution of soft soap.*

(c) Fresh slaked lime.*

4. Special instructions to be observed in the employment of disinfecting solutions.

The linen, clothing and articles soiled by the excreta of patients should be soaked in the solution of corrosive sublimate. The solution of pure carbolic acid, and the solution of soap and carbolic acid are equally suited to the purpose. The articles should remain in the solution for at least six hours.

Articles which cannot be subjected to the temperature of the stove (100° Centigrade) without injury, such as leather goods, wooden articles stuck together with glue, felt, velvet, silk, etc., should be washed with the solution of corrosive sublimate; coins can be disinfected with the solution of soap and carbolic acid.

Persons engaged in nursing the sick should wash their hands and faces with the solution of corrosive sublimate, or with one of the carbolic solutions.

The carbolic solutions will be useful more particularly for disinfecting articles, such as metals, instruments, etc., which can neither be subjected to a temperature of 100° Centigrade, nor placed in contact with corrosive sublimate.

Slaked lime is particularly recommended for disinfecting excreta. Expectorated matter should be burnt.

5. Disinfection of ships with plague patients on board.

The cabin or cabins, and all parts of the ship occupied by the sick or *suspected*, should be cleared out and all articles in them should be treated as described above.

The partitions should be disinfected with the solution of corrosive sublimate with an addition of 10 per cent. of alcohol. The washing should commence from the top, horizontally, and be continued downwards, so that the whole surface of the partition becomes covered with a coating of minute drops.

The boarding should be washed with the same solution.

Two hours after, the walls and flooring should be washed over with plenty of water.

6. Disinfection of the hold of an infected ship.

* To get very strong slaked lime, take lime of good quality, slake it, by moistening it gradually, with half its weight of water. When the operation is completed, put the powder in a carefully corked receptacle, and place it in a dry spot. As each kilogramme of lime absorbs 500 grammes of water in order to become slack, it acquires a volume of 2 litres 200, and it is sufficient to dilute it with double its volume of water, say 4 kilogrammes 400 grammes to obtain a whitewash which will be of about 20 per cent. strength of lime.

To disinfect the hold, sulphate of iron, in quantity sufficient to neutralise the sulphurated hydrogen, should first be thrown in, the bilge-water should be pumped out, and the hold washed with sea-water. Solution of corrosive sublimate should then be thrown in.

The bilge-water should not be pumped out while the ship is in port.

CHAPTER IV.

Precautionary measures recommended for ships on departure, during the voyage, and on arrival.

Note.—Plague appears to be transmitted by the excretions of the sick (from the air passages and bowels), by the morbid products of the disease (pus), and consequently by means of linen, clothing, and soiled hands.

I.—Measures to be taken on departure.

1. The captain should be careful not to embark persons suspected to be suffering from plague. He should refuse to receive on board dirty or suspicious linen, personal effects, and bedding, and, generally, all dirty or suspicious articles.

Bedding, wearing apparel, personal effects, etc., belonging to persons suffering from plague should not be taken on board.

2. Before embarkation the ship should be put in a state of perfect cleanliness and she should, if necessary, be disinfected.

3. It is essential that the drinking-water taken on board should be obtained from a source free from all possible contamination.

Water is not dangerous if it is distilled or boiled.

II.—Measures to be taken during the voyage.

1. Every ship should have a special place reserved for the segregation of persons attacked by contagious disease.

2. If there is no such place on board, the cabin or other place, in which a person is attacked with plague, should be isolated.

Only those attending the patients should be admitted.

Such attendants should be cut off from all contact with the other persons on board.

3. The bedding, linen, and clothing which have been in contact with the patient should immediately, and in the patients' room, be soaked in a disinfecting solution.

The same measure should be taken in the case of the clothing of the persons who have access to the patient which may have become polluted.

(c) Fresh slaked lime.*

4. Special instructions to be observed in the employment of disinfecting solutions.

The linen, clothing and articles soiled by the excreta of patients should be soaked in the solution of corrosive sublimate. The solution of pure carbolic acid, and the solution of soap and carbolic acid are equally suited to the purpose. The articles should remain in the solution for at least six hours.

Articles which cannot be subjected to the temperature of the stove (100° Centigrade) without injury, such as leather goods, wooden articles stuck together with glue, felt, velvet, silk, etc., should be washed with the solution of corrosive sublimate; coins can be disinfected with the solution of soap and carbolic acid.

Persons engaged in nursing the sick should wash their hands and faces with the solution of corrosive sublimate, or with one of the carbolic solutions.

The carbolic solutions will be useful more particularly for disinfecting articles, such as metals, instruments, etc., which can neither be subjected to a temperature of 100° Centigrade, nor placed in contact with corrosive sublimate.

Slaked lime is particularly recommended for disinfecting excreta. Expectorated matter should be burnt.

5. Disinfection of ships with plague patients on board.

The cabin or cabins, and all parts of the ship occupied by the sick or *suspected*, should be cleared out and all articles in them should be treated as described above.

The partitions should be disinfected with the solution of corrosive sublimate with an addition of 10 per cent. of alcohol. The washing should commence from the top, horizontally, and be continued downwards, so that the whole surface of the partition becomes covered with a coating of minute drops.

The boarding should be washed with the same solution.

Two hours after, the walls and flooring should be washed over with plenty of water.

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The same measure should be taken in the case of the clothing of the persons who have access to the patient which may have become polluted.

Articles which are of no value should be burnt, or thrown overboard, if the ship is not in port or in a canal. Other articles should be carried to the stove, in impermeable bags, sprinkled with a solution of corrosive sublimate, so as to avoid all contact with surrounding objects.

If there is not a stove on board, the articles should be soaked in the disinfecting solution for six hours.

2. The excreta of the sick should be collected in vessels, into which a glass of the disinfecting solution above described has been previously poured.

3. The vessels should be at once emptied into the latrines which should be disinfected each time.

4. The places occupied by the sick should be carefully disinfected according to the rules previously laid down.

5. Corpses should be wrapped in a shroud impregnated with corrosive sublimate and thrown into the sea.

6. All the preventive measures taken during the voyage should be stated in the log, which should be submitted to the sanitary authority immediately on arrival in port.

7. The measures should be applied to everything that has been in contact with the sick, irrespective of the gravity and result of the illness.

III.—Measures to be taken on arrival.

1. If the ship is *infected*, the persons attacked should be disembarked and segregated in a place set apart for the purpose.

Those who have had access to the sick should be considered as *suspected*.

2. All contaminated objects and articles, such as clothes, bedding, mattresses, carpets, and other articles which have been in contact with the sick, the clothes of those who have been in attendance on them, the articles in the patients' cabin, and in any cabin and on the deck, or parts of the deck where the sick have been placed, should be disinfected.

CHAPTER V.

Administration and Control.

Powers of the Constantinople Board of Health (Red Sea—Persian Gulf—Perso-Turkish, and Russo-Turkish frontiers).

1. The execution and control of measures against the spread of plague, prescribed by this Convention, are entrusted, in exercise of the powers of the Constantinople Board of Health, to the Committee

established by Article 1 of Annexure IV of the Paris Convention of the 3rd April 1894. It should be explained, however, that the members of this Committee will be taken exclusively from the Constantinople Board of Health, and will represent the Powers which have accepted, or may hereafter accept, the Sanitary Conventions of Venice, 1892, of Dresden, of Paris, and of Venice, 1897.

2. The proper working of the various sanitary establishments, prescribed by existing rules, is entrusted to the corps of diplomaed and duly qualified doctors, of disinfecting officers, of experienced subordinates and of sanitary guards recruited from among persons who have performed military service as officers or non-commissioned officers, as provided for in Article 2 of Annexure IV of the Paris Convention.

3. The expenses of the establishment of permanent and temporary sanitary posts, as contemplated by this Convention, are, as regards the construction of the buildings, debitable to the Turkish Government. The Constantinople Board of Health is authorised, in case of emergency, to advance the necessary money from the reserve fund. In this case, it should supervise the construction of these establishments.

4. The Constantinople Board of Health should also organise without delay, the sanitary establishments at Khanikin, and Kizil Dizé, near Bayazid, on the Perso-Turkish frontier, out of the funds which are now placed at its disposal.

5. Articles 4, 5 and 6 of Annexure IV of the Convention of Paris of 1894 may be utilised for carrying out the present rules.

Powers of the sanitary, marine, and quarantine Board of Egypt.

6. The expenses involved in the measures prescribed for in the rules contained in this Convention may be met by the following measures, which the Conference recommends, not only to meet the new requirements at Moses' Wells, but also to defray the cost of the increase of the staff under the Sanitary Board :—

(1) The prorogation, with the consent of the Powers, of the Khedival Decree of 20th December 1896 (fixing the 1st July 1897 as the date for the application of the reduced tariff for lighthouse dues) until the difference between the receipts of the present tariff and the reduced tariff has reached the sum of £4,000 (Egyptian). The sum thus realised will be devoted to extraordinary expenses (new arrangements at Moses' Wells).

(2) For ordinary expenses (increase of staff) an annual payment by the Egyptian Government to the Sanitary Board of a sum of £4,000 (Egyptian), which can be deducted in advance from the surplus of the lighthouse service fund remaining at the disposal of the Government.

From this sum, however, there will be deducted the value of a supplementary quarantine tax of P. F. 10 (piastres tariff) to be collected from each pilgrim at El-Tor.

In the event of the Egyptian Government finding difficulty in meeting its share of the charges, the Powers represented on the Sanitary Board will arrange with the Khedival Government to ensure the participation of the latter in the estimated cost.

Rules for outward and inward bound vessels issued after the Venice Convention.

BOMBAY.

No. 4021, dated Bombay Castle, the 22nd July 1897.

From—J. DE C. ATKINS, Esq., I.C.S., Secretary to the Government of Bombay, General Department,

To—The Secretary to the Government of India, Home Department.

No. 89.

With reference to your letter No. 1623, dated the 1st June 1897,

Letter No. 2915, dated 24th June 1897, with accompaniments, from the Acting Commissioner of Customs, Salt, Opium and Abkari.

Letter No. 3070, dated 2nd July 1897, with accompaniments, from the Acting Commissioner of Customs, Salt, Opium and Abkari.

I am directed to forward herewith copies of the papers noted in the margin, and to solicit the orders of the Government of India on certain important questions arising in connection with the contemplated alteration of the rules issued by this Government under the Epidemic Diseases Act, 1897, and Act I of 1870, so as to bring them in accord with the provision of the Venice Sanitary Convention of 1897.

2. The draft rules for the port of Bombay, submitted by the Commissioner of Customs, Salt, Opium and Abkari, comply with the requirements of the Venice Convention, except in one particular: they do not provide that the medical examination of each person sailing shall be on shore. They are, however, in the opinion of this Government, suitable and effective.

3. The most important to other countries, the most difficult to this Government, of the sanitary measures for ships sailing from infected ports, is the individual medical inspection of each person sailing. The labour involved in conducting this inspection is immense. In April and May of this year upwards of 162,000 outgoing persons were medically examined at the port of Bombay. The efficiency of the examination was extraordinary. As far as is known, plague was prevented from entering any ocean-going vessels leaving the port of Bombay, except the pilgrimship *Pekin* and transport *Dilwara*: and in the case of the latter vessel the Port Health Officer had not been

entrusted with the medical inspection of the class of persons amongst whom plague appeared. The Governor in Council cannot leave this particular aspect of the matter without expressing to His Excellency the Governor General in Council his appreciation of the admirable work done by Dr. MacCartie and his staff during the past six months; and his opinion that by reason of Dr. MacCartie's very wide, probably unique, experience in the matter, that officer's views on medical inspection are entitled to the most earnest consideration.

The first point to notice particularly is that in the case of ordinary steamers and especially those sailing to European and Colonial ports, the chief danger of infecting the vessel arises, not from the passengers, but from the crew. There seems to be little room for doubt that the expression "each person sailing on the ship" used in the Convention includes the crew. But, however that may be, it is essential that the crew should be inspected; unless the lesser source of danger alone is to be guarded against and the greater left unchecked. But herein lies the absolute impracticability of inspection on shore. The reasons are so clearly pointed out in the papers accompanying this letter that they need no further elaboration. Indeed no statement of reasons is needed to show that in the case of vessels sailing from the stream, the inspection of the crew cannot be on shore at the time of embarkation. The fact is patent.

5. This Government therefore are compelled to ask that the Convention should be so modified as to allow of inspection on shore or on board, as the circumstances of any particular port may render necessary. The power of suggesting modifications in the Convention is reserved to the contracting parties. It should, this Government consider, be exercised in this particular instance for two reasons. The first I have already fully explained, it is the practical impossibility of a complete inspection on shore. The second is that there is not necessarily any loss of efficiency involved in an inspection on board. Dr. MacCartie shows how time after time he had members of the crew of a vessel removed for observation, how a certain number eventually developed plague; and yet that on the vessels from which they had been removed no more cases of plague occurred. It seems to be practically demonstrated that the early stage of plague is not one in which the disease is communicable by the patient, and consequently the removal from a vessel of a person suffering at an early stage of the illness accompanied by the removal of those in attendance on him and his and their effects is a thorough safeguard to the vessel and those on board. Even at a more advanced stage effective disinfection of the portion of the vessel a plague patient has been in contact with, in addition to the other measures, would secure the vessel and those on board from danger. As a matter of experience, however, it is found

that cases on boardships are discovered at an early stage. These considerations taken with the results of the inspection of outgoing vessels from Bombay throughout the time when plague was at its worst demonstrate that the Bombay method of inspection is not wanting in efficiency and need not be changed.

6. The argument of expense, though important, is not one which this Government consider it desirable to urge as a ground for modifying the provisions of the Convention. They rely on the thorough efficiency of the method practised in Bombay, and on the practicability of that provided by the Convention.

7. The Bombay Government agree with Sir James Campbell that when plague cases have become very few in Bombay the inspection rules should be applied to certain classes of vessels only. So long, however, as Bombay remains an infected port, within the meaning of that expression as used in the Convention, individual medical inspection must be made of every person sailing in each vessel proceeding to any port of a country which is a party to the Convention. As regards vessels proceeding to other ports whether within or outside India, the inspection can be altered or discontinued at will. I am to enquire whether it is the wish of His Excellency the Governor General in Council that no such alterations or discontinuance should be made without previous reference to the Government of India, and to this enquiry I am to request that, if the Government of India see no objection, an answer may be sent by telegram; for it is to be hoped the time is near when the inspection of vessels proceeding from Bombay may in some cases be relaxed or discontinued.

8. I am to add that Sir James Campbell appears to be in error in stating (paragraph 10 of his letter No. 3070 of 2nd July 1897) that "under a recent order of the Government of India letter No. 1623, dated 1st June 1897, the Local Government rules regarding the inspection of ships are to be adjusted to the Convention rules." It is understood that the order quoted applied only to the assimilation, to the requirements of the Convention, of the rules for the inspection of vessels proceeding to ports out of India from Madras and Calcutta.

No. 2915, dated Bombay, the 24th July 1897.

From—SIR JAMES MACNABB CAMPBELL, K.C.I.E., I.C.S., Acting Commissioner of Customs, Salt, Opium and Abkari,

To—The Secretary to the Government of Bombay, General Department.

With the help of Surgeon-Major MacCartie, the Health Officer of

VENICE, CONVENTION.
PLAGUE INSPECTION BY SEA.
Outward and Inward.

the port by whom the rules have been drafted, I have the honour, as directed in your No. 3188 of the 9th June 1897,

to furnish the following information.

2. To adjust the procedure at Bombay with that laid down in the Venice Convention, as explained by the Government of India in their letter No. 1623, dated 1st June 1897, two sets of rules A outwards and B inwards are required.

3. The details of rules B inwards are taken from the regulations enforced by Government at Aden and Karachi against arrivals from plague-infected ports. The means of segregation now available in Bombay make it possible to provide for the accommodation and treatment of from 600 to 800 infected or suspected arrivals, a total which is not likely to be reached, except at such times as pilgrims from the Hedjaz may be returning to Bombay in infected ships. At the same time it is to be noted that segregation is available only in the city itself. Bombay at present has no means of detaining in any quarantine camp outside the city of infected or suspected arrivals.

4. The details of rules A outward are in the main in agreement with the existing procedure in Bombay. With few exceptions the arrangements in force since 6th February last can be continued with such slight modifications as will bring them more exactly in agreement with the conclusions of the Venice Conference. In drawing up these rules we have felt uncertain how far it is the intention of Government to order the inspection of every vessel which leaves Bombay for any port. It seems necessary to leave it open to Government to decide that when plague cases in Bombay have become very few these rules should apply to certain classes of vessels only, say those bound for Europe.

5. The only important exception to the general conformity is that while it has been the practice in Bombay to inspect the passengers and crew of outgoing vessels either on shore or on board, as the other necessary arrangements regarding the departure of the ship made possible, the Convention Rules as noted in Government of India No. 623, of 1st June 1897, paragraph 5, contemplate no inspection of outgoing passengers and crews except on shore.

6. An examination of the conditions under which vessels leave Bombay shows that it is not advisable, that it is not even possible, to enforce a rule which makes all outgoing medical inspection an inspection on shore.

7. In Bombay vessels start from one of three places—

- (1) The outer wall of the dock.
- (2) The docks.
- (3) The stream.

In the case of vessels starting from the outer wall of the dock the passengers are now, and, since plague inspection was started early in February 1897, have been inspected on shore in sheds specially

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In the case of vessels starting from the outer wall of the dock the passengers are now, and, since plague inspection was started early in February 1897, have been, inspected on shore in sheds specially

arranged on the dock wall. The crews of those vessels, that is of vessels that start from outer wall of the dock, are mustered and examined on board before the passengers are allowed to enter the ship. In this way only can the stokers, foreman and other members of the crew who are on duty be inspected without the risk of delay or of accident. It might be possible to arrange to inspect the crew in batches on shore. But the annoyance and risk of such a procedure are clear and the practical merit of the precaution is not apparent since the crew have been already on board, and if one of them on inspection is found to be suffering from plague, he must be considered to have infected the ship. In this connection I would venture to draw attention to the fact that the inspection of the crew is of more importance than the inspection of the passengers. Returns show that of the inspections during April and May 1897 more than one half were inspections of members of crews (86,938 of 161,406). And it is evident that specially in the case of vessels for Europe, the shore life and surroundings of the passengers are more wholesome than those of the crew.

8. The difficulties in the case of No. 2, that is of departures from the dock, are more serious than in the case of No. 1, departures from the dock wall, since these difficulties affect passengers as well as crew. Under the rules no inspection can take place at night. The state of the lading or of the tide not unfrequently compels a vessel to leave the dock at night. Vessels which in any voyage may have to leave the dock by night sometimes carry 500 to 600 passengers. If the passengers and crew have to be inspected on shore a building must be secured in some central position in the docks with separate rooms and retiring rooms for men and for women. Even though necessary quarters are provided a further set of difficulties remain. If the vessel leaves the dock during the night how can the passengers be controlled. The docks are about $1\frac{3}{4}$ miles round. To use the only available latrines passengers must be allowed to move about the docks. What is to prevent a passenger taking advantage of this freedom to pay a visit in the town? Again when the ship starts what security is there that the passenger who passed sound the evening before is the same passenger who leaves Bombay? A strong body of special police might help to keep irregularities within bounds. Such a force would be costly and, considering the peculiar characters of the duty, they could hardly be expected to be markedly efficient. These objections are urged in the case of passengers who leave the dock by night. The same objections apply in some details with more, in other details with less force, in the case of crews who start during the night.

9. In the case of No. 3, departures from the stream, the objections to a shore inspection either of passengers or of crew are still stronger.

Separate inspection rooms, perhaps at Ballard pier, would have to be provided, and to control passengers starting from the stream would be still more difficult than to control them during a night departure from the dock. But it is in the case of the crews of the larger vessels leaving Bombay from the stream that the difficulty of arranging a shore inspection practically becomes an impossibility. The *India* or other large mail steamer in the stream ready to weigh anchor has a crew of 332 men. That the whole of this mass of men can either in block or by detachments be sent on shore for medical inspection is a proposal which, so far as I can judge, is not practicable.

10. I am therefore hopeful that the principle which the Venice

Rules, page 3, paragraph II-1.

Convention has been pleased to adopt, namely, that each Government may take to account local considerations and conditions, may be declared to include in Bombay such boardship inspection as local circumstances have proved to be necessary. That in fact the concession of board-

See General Rules, page 3, Note.

ship inspection granted by the Venice Convention in Batavia to pilgrim ships may be applied in Bombay to the less rigid treatment required in the case of ordinary passengers. It may be objected that in Bombay the concession of boardship inspection is unnecessary, seeing that all pilgrims are inspected on shore. The reply is that in Bombay to make the shore inspection of pilgrims possible restrictions regarding the berth occupied and the hour of sailing have to be enforced which could not be made applicable to ordinary passenger ships.

11. The chief argument in support of the concession of boardship inspection is neither the saving of expenditure nor the smoothing of difficulties. The chief argument in its favour is, since its introduction in early February, the notable success of the Bombay system of inspection partly on shore, partly on shipboard. During the past four months the outward plague inspections by sea have been February 79,623, March 91,779, April 80,608, and May 81,398. Of this total of 333,408 inspections in no single case, for the *S. S. Dilwara* was inspected by the military authorities, did plague appear after any of the vessels left Bombay.

12. With a record so favourable to the local alternative system I trust Government may be pleased to move the Government of India to allow the existing port-shore, port boardship inspection to continue as the sole concession to the local conditions of Bombay which the experience of several months has shown to be necessary. With this hope I have the honour to forward a set of rules A, outward, drafted by Surgeon-Major MacCartie, which I consider will carry out the directions of the Venice Convention, except in as far as in

accordance with the existing Bombay practice, they permit inspection on shore or on boardship according to the circumstances of each case.

13. Along with the general summary contained in this letter of the grounds for continuing the system in force in Bombay, I have the honor to submit a memorandum from Dr. MacCartie, stating in detail the evidence in favour of alternative boardship inspection. All the considerations on which the Health Officer of the port lays stress seem to me of practical importance. They form a valuable record of his special experience of the system of inspection required in Bombay to guard against the outward and inward spread of plague by sea.

A.—OUTWARD.

Rule I.—No vessel shall leave the port of Bombay for any of the following ports.

Until she has been inspected by the Health Officer of the port, and the master or person in charge of such vessel has obtained a bill-of-health or certificate from such officer that the master or person in charge, officer and passenger (if any) of such vessel are free from plague: provided that, in the case of a vessel that has called at Bombay from a port outside the continent of India *en route* for some other port, and which has on arrival a clean bill-of-health and has had no communication with Bombay, except through any person or persons who shall have embarked there, the inspection of such vessel by the Health Officer of the port may be limited to the medical examination of such person or persons so embarked, and the bill-of-health or certificate required by this rule shall only certify that such person or persons is or are free from plague, and such certificate may be in the form of an endorsement on the bill-of-health furnished to the vessel at the last port of call prior to arrival at Bombay. For the purposes of this proviso the Collector of Customs and the Port Health Officer are empowered to decide what shall constitute communication with Bombay.

Rule II.—Should the Health Officer of the port be of opinion that any person on board of, or about to sail on, any vessel so inspected is suffering from plague he shall refuse to give a bill-of-health or certificate as aforesaid unless and until such person together with his or her attendants and relatives, and their baggage and personal effects have been removed from the vessel, and the vessel has been disinfected in such manner as the Health Officer of the port directs; and such removal and disinfection shall be noted on the bill-of-health. The baggage and effects of such persons as are removed from or

prevented from sailing in any vessel under this rule shall be disinfected on shore in such manner as the Port Health Officer directs before such baggage and personal effects are permitted on board any vessel.

Rule III.—After the master or person in charge of the vessel has obtained a bill-of-health or certificate under the provisions of these rules, no person or cargo or goods of any kind shall be embarked or disembarked before the vessel leaves the port of Bombay, unless such vessel is again inspected by the Port Health Officer and another bill-of-health or certificate obtained from such officer by the master or person in charge of the vessel.

Rule IV.—No port clearance shall be delivered to any vessel unless and until the master or person in charge thereof shall produce the bill-of-health or certificate to be obtained as aforesaid, and it shall be the duty of customs officers to refuse delivery of the port clearance until such master or person in charge shall produce such bill-of-health or certificate and such bill-of-health or certificate comes within the provisions of rule V.

Rule V.—Vessels not leaving port before 6 A.M. of the day following the medical inspection may not leave without re-inspection.

Rule VI.—The medical inspection of vessels and passengers shall be carried out between sunrise and sunset.

Rule VII.—The Government of Bombay may appoint any person or persons by name or by virtue of office, Health Officer or Health Officers of the port for the purpose of these rules as regards any class or classes of vessels and may cancel any such appointment.

Rule VIII.—Should the Port Health Officer prevent the embarkation or sailing of any persons under these rules, such person or persons may be kept under observation in duly appointed places until free from any suspicious signs or symptoms of plague, and actual plague cases may be removed to such hospitals as are appointed for the purpose.

Rule IX.—Disobedience of any of the above rules I, II, III, IV, V, and VIII will subject the offender, and all persons aiding and abetting him to a prosecution under Indian Penal Code.

B.—INWARD.

In exercise of the power conferred by Act III of 1897, His Excellency the Governor in Council is pleased, with the previous sanction of the Governor General in Council to make the following rules and to publish the same for general information. These rules have effect

from

in the port of Bombay as a

temporary measure—

- I.—The commander of every vessel, including buggalows or other native craft arriving at Bombay from shall, before entering harbour, hoist a yellow flag; or shall, if entering port at night time, show the quarantine light signals, *viz.*, 3 lights, red, white and red at the main. He shall indicate by signal the port from which the vessel has come, and shall keep such flag and signals hoisted until permitted to take them down as hereinafter provided. The pilot on going alongside a vessel from

shall direct the flag or lights prescribed above to be hoisted, if this has not already been done.
- II.—Such commander shall not without first having obtained permission, as hereinafter provided allow any communication except orally, with the shore or with any vessel or board excepting with the boat supplying pilots, and in that case communication shall be limited to receiving on board the pilot, his servant and baggage.
- III.—On such arrival being signalled the Health Officer of the port shall as soon as possible go alongside the vessel and ascertain by enquiry from the commander, and by careful individual medical examination of the passengers and crew, whether any person on board is suffering or has during the voyage suffered from plague, or whether any death has occurred during the voyage from unknown or suspicious causes. If the Health Officer of the port is satisfied by such enquiry and examination that no person on board is suffering, or during the voyage has suffered, from plague, and that no death from unknown or suspicious causes has occurred during the voyage, and that the vessel has been ten clear days out from

pratique shall be given at once, subject to the directions of the Health Officer of the port as to what, if any, procedure of disinfection shall be carried out. Should ten clear days not have elapsed between the date of the vessel's departure from

and its arrival at Bombay, it will be within the discretion of the Health Officer of the port (to refuse pratique until ten

clear days have elapsed since the vessel's departure from

or until all persons on board have been subjected to medical supervision at an appointed place during such period as will complete ten days from the date of the vessel's departure from

For the purposes of this rule the Health Officer of the port may demand a declaration on oath from the medical officer or in his absence from the commander that there has been no case of plague on the ship since her departure from

IV.—If, as the result of the enquiry and examination made under rule III, the Health Officer of the port shall have reason to believe or suspect that at the time the vessel arrives in the harbour any person is suffering, or during the voyage has suffered, from plague, or that any suspicious death has occurred, he shall direct that such person, together with all his or her baggage and personal effects other than such contaminated or infected articles as the Health Officer of the port directs to be destroyed, be removed to such place as is appointed for the purpose, there to remain until permitted to leave by the medical officer in charge of such place. After such removal the Health Officer of the port may direct the commander to take the vessel to such quarantine anchorage as is appointed for the purpose, there to remain for a period of ten days, and he may direct that whilst at the aforesaid anchorage all communication, except such as is hereinafter provided, between such vessels and the shore or other vessels or boats in the harbour, shall be prohibited. Under this rule the period of quarantine for vessels which on arrival are found free from cases of plague, but on which a suspicious death has occurred during the voyage should be limited to ten days from the date of such suspicious death.

V.—If, during the period, a vessel is at the quarantine anchorage aforesaid any case or cases of plague should occur on board, the said vessel shall remain in quarantine for a period of ten days from the termination of the last case either by death, recovery, or removal from the vessel, and be subject to all the prohibitions provided in rules III and IV.

VI.—When any vessel has been placed in quarantine as aforesaid, the Port Health Officer may direct that so many of the passengers and crew as may not be suffering from illness, and whose services may not be required on board, the vessel shall be removed to such place as may be appointed for the purpose there to remain for such time as will complete a period of ten days either from the date of departure from

or from the date of the occurrence of the last plague case, and under such directions as the Port Health Officer may lay down as to disinfection of the personal effects of the said passengers and crew. After such removal the vessel and the effects of such persons as have remained on it shall be disinfected in such manner as shall be laid down by the Port Health Officer.

VII.—Any mails, baggage or cargo which may be brought by any vessel so arriving shall be landed under such precautions as to the Health Officer may seem necessary to prevent the spread of the disease.

VIII.—It will be the duty of the Port Officer to facilitate the conveyance to all persons in quarantine of such supplies of provisions, stores, and other articles as may be required.

IX.—All vessels arriving at Bombay, which may have communicated with vessels coming from—shall be subjected to the same rules as vessels arriving at Bombay from

No. 591 of 1897.

Note by Surgeon-Major MacCartie on Government of India letter No. 1623, Home Department, dated 1st June 1897 (Sanitary).

In order to bring the rules now in force at Bombay against the export and import of plague within the lines laid down by the Venice Sanitary Conference, two sets of rules must be considered:—

I.—Those to be enforced as regards departures by sea.

II.—Those against arrivals by sea.

I.—Departures.

2. The two points of difference between the Bombay rules at present in force and the Venice Regulations are—

(a) Venice rules insist on medical inspection *on shore* before embarkation of each person sailing on a vessel: whereas

the Bombay rules permit of inspection on shore or on boardship as the case may be.

- (b) Inspection on shore of contaminated or suspected articles is compulsory under the Venice rules and is not mentioned in the Bombay rules. A third point of difference is the wish of the Government of India expressed in paragraph 5 of their letter No. 1623 of 1st June, that the attendants and relatives of infected cases should be prevented from embarking.

3. The order to inspect on shore each person sailing on the ship would seem to include crews as well as passengers, and if that is the intention, its inclusion in the Bombay rules will be difficult, if not impossible, for the following reasons:—

A very large number of vessels do not enter the docks. They load and unload in the stream and their crews therefore live on board, but communicate freely with the shore either by visits to the town or by contact with shore people who load or unload the vessels. If these crews have to be brought on shore for inspection, great expense, trouble, and delay will be thrown on shipowners with no compensating advantage, for, if any member of them is found at the inspection of shore to be suffering from plague, he must be considered to have already infected the ship he has come from.

The largest P. and O. vessels always sail from the stream and have crews numbering from 300 to 340 men. All these have free communication with the city for many days before departure from Bombay. Are they to be brought on shore for examination on the day of sailing, as would seem to be intended by the rules of the Venice Conference, and if so, what sanitary object has been attained by a transfer from ship to shore at great expense, inconvenience and delay to the owners, and at considerable risk to the ships thus deprived of their crews?

The same objections apply though in a lesser degree to such vessels as sail direct from the wet docks. Although the question of expense may not arise, there is a maximum of inconvenience and no apparent compensating sanitary advantage.

5. How important is this crew question will be seen from the return of persons inspected prior to their departure from Bombay by sea during the months of April and May last, the only two months for which the returns have as yet been made out. In April 80,008 persons were inspected, of whom 42,141 were crews. In May 81,398, of whom 44,797 were crews.

It is thus evident that the crews of vessels have been even more numerous than the passengers, and that the transfer of an average of

over forty-three thousand a month to shore for inspection would have been impracticable, and as regards any sanitary object, such as the prevention of infection on a departing vessel, useless.

6. It is to be hoped then that the expression "every person sailing in the vessel must be examined on shore" which occurs in paragraph 5 of Government of India letter No. 1623 of 1st June 1897, will not be held to include the crews of vessels.

7. On the other hand, the inspection of all passengers on shore will be possible, although extremely difficult and very expensive as will be seen from the following remarks.

In accordance with the Venice Regulations, Bombay, as long as indigenous cases of plague occur there, will be bound to inspect all outgoing persons; but it is the opinion of many medical men of standing that plague will, as cholera had done, become endemic in Bombay. There is therefore a possibility if not a probability of the Local Government having to provide an inspecting staff to prevent the export of plague cases, commensurate with the enormous human traffic between Bombay and other ports.

To estimate what staff is necessary for this purpose is of course impossible until it is known whether the regulations as to inspection refer only to vessels bound for Europe, or are to apply as at present, to all persons leaving Bombay by sea for anywhere. If the latter, then a staff sufficient to inspect some 80,000 people a month will be necessary. Such a staff has been in existence since the 6th February, and consists of—

- 1 Port Health Officer,
- 1 Additional Port Health Officer,
- 3 Commissioned Medical Officers,
- 3 Assistant Surgeons,
- 1 Hospital Assistant,
- 2 Lady Doctors,

and services of one other Lady Doctor on at least two days of each week, and in addition to the above, three qualified medical officers who worked under the supervision of the Customs Department, chiefly in connection with the inspection of small native sailing craft.

The above staff was really too small, and the work was only satisfactorily done by working at a pressure which is only possible for a limited time, which left absolutely no margin for sickness or accident, and necessitated hours of duty lasting on too many occasions from 5-30 A.M. to 7 and at times 8 P.M. with a very brief interval for breakfast, whilst it was found necessary on English mail days to supplement that staff by enlisting the services of at least two and sometimes four of the Professors of the Grant Medical College.

The necessity for a large staff is not merely because so large a number of persons have to be inspected, or because vessels sail at all hours and from different anchorages or berths in a large harbour, but also because plague is a disease which compels a most rigid inspection of all persons who present themselves for examination. Its main and chiefest signs are fever and bubos, and accordingly any man with fever or with bubos becomes an object of suspicion, has to have his temperature taken and be examined practically naked. During the inspection of departing passengers by sea in February, March, April and May, the numbers placed on one side for temperature observation ranged from 20 to 25 per cent., and as many as a dozen thermometers were in use at the same time.

8. Therefore as long as plague exists, the Local Government will require a very large staff to examine outgoing vessels, for, even if there are but few cases of plague in the city, every one departing from Bombay must be looked upon as a possible plague case, and will have to be most rigidly examined; for no Port Health Officer can be expected to sign a bill-of-health which certifies to the absence of plague from amongst crew and passengers, unless he is satisfied that all that is humanly possible has been done to ensure that the bill-of-health is an honest one.

9. It becomes, then, important to consider how the inspection of outgoing persons from Bombay can be managed without the Local Government having to undergo a very heavy expenditure; and, as I submit, the expense of an inspecting staff will, if all persons are to be examined on shore, as directed in paragraph 5 of Government of India letter No. 1623 of 1st June, be so great as to practically be prohibitive.

10. In discussing the question of shore inspection, the starting points of steamers must be remembered. Vessels sail from—

- (1) Berths alongside banders or docks harbour walls.
- (2) From the wet dock.
- (3) From the stream or open harbour.

As regards class (1) there is no difficulty. The passengers of this class are even now examined on shore in sheds belonging to the Port Trust, and specially arranged for the purpose, and are then passed direct into their vessel, and these passengers are those most likely to be infected, being those who travel by Shepherd's steamers and the British India boats bound to Kathiawar, Cutch and Karachi.

As regards classes (2) and (3), the difficulties and expense of inspection on shore at once become manifest, even if the passengers only are considered.

They are—

- (a) Increased staff necessary.
- (b) Considerable outlay required to erect suitable buildings with separate compartments for the inspection of men and women, and retiring rooms for the more private examination always necessary in plague inspections.
- (c) The difficulty of controlling the movements of passengers after inspection.
- (d) An increase of staff will be necessary more especially in the case of vessels sailing from the stream, because in addition to the inspection of passengers on shore, the vessels and crews (if it is permitted to examine the latter on board) must also be inspected, and even if the crews are not to be inspected on board, the vessels must still be examined, and their sanitary condition enquired into. The importance of this sanitary examination of vessels cannot well be exaggerated, and has always been admitted here and given a prominent place in the Government bills-of-health.

If passengers may be examined on board, then vessel, crew and passengers can all be examined in one place and by the same staff. It follows that more men and more time will be required if the ship has to be examined at one time and the passengers at another.

- (b) Outlay for erection of buildings. Two such buildings will be necessary, one for passengers embarking on vessels of class (2) placed at some central position of the wet docks and a second situated at, say, Ballard pier, for passengers embarking in vessels of class (3). The necessity for these buildings disappears if passengers may be allowed to embark before inspection.
- (c) Difficulty of control of passengers after inspection. This is very apparent in connection with vessels leaving the wet docks and the stream. Vessels sail from the docks according to tidal conditions both by day and night, and some of them carry from five to six hundred native passengers. Such a vessel may be timed to leave her berth at 4 A.M. Her passengers can be inspected on previous evening on shore. They have then to be escorted to their vessel, and, on boarding it find that all the ship's water closets are closed, as they are by rule.

This compels to resort to the dock latrines. Who is to prevent them, when they have left their ship for this purpose, from visiting city? After they have been inspected on shore, who is to guarantee

that those inspected are those who ultimately sail in the vessels? Under a system which permits inspection on board the passengers would be embarked at sunset, the vessel would leave dock at 4 A.M. and anchor in the stream, where at 6 A.M., her passengers would be inspected, and the vessel sail away immediately the examination was over.

The same difficulty, but more intensified, exists in the cases of vessels lying in the stream. Who is to control the passengers between Ballard pier and vessels lying all over the harbour and often several miles from Ballard pier?

This difficulty of control of passengers may be got over by a sufficiently large police force, and special barges on which to convey persons to the various ships, but native sepoys are sometimes inefficient, and not always beyond the reach of bribery.

11. The difficulty and expense of compulsory shore inspection will of course be much lessened if the rules of the Venice Sanitary Conference are held to apply only to vessels leaving Bombay for European ports, but they will exist even then to a very appreciable extent.

12. It now remains to show that the system at present in force in Bombay, which permits of inspection on boardship or on shore as the conditions demand, has not been attended with any ill consequences and has, as regards the prevention of the export of plague to other countries, worked satisfactorily. Since 6th February, 1897, when the Government order for the inspection of all vessels leaving Bombay came into force, only one plague case as far as is known got away from Bombay by sea, *viz.*, that by the S.S. *Dilwara* hired transport. Before that date two plague cases occurred in the pilgrim vessel *Pekin* after departure from Bombay. In both those cases passengers were inspected on shore prior to embarkation, and in the *Dilwara* instance had the inspection of passengers been made on board at the time when the Port Health staff visited the vessel for examination of the ship and its crew, the plague case which had been inspected two days previously on shore might possibly have been discovered. The arrangements for the medical examination of passengers by troopships are made by the military authorities, the Port Health staff only inspecting crews and vessels. The *Dilwara* and *Pekin* were therefore infected vessels, and the latter vessel carried over 1,000 of perhaps the most insanitary and dirty people, who travel by sea, pilgrims—yet the disease did not catch on, nor did the passengers on board these very crowded vessels suffer in health from the fact that plague cases were amongst them. During the inspection on boardship from February up to date, many persons

have been removed from outwardbound vessels as suspicious cases. Some of these developed plague after removal, but in no instance did the disease appear amongst those who remained on the vessels. They sailed away and no more plague occurred from which it would seem that the circumstances of a sea voyage are inimical to the plague microbe : and that people affected by manifest plague, or in whom the disease is incubating, may be on boardship without danger to the rest of the passengers, unless, indeed, the number of infected ones is very great. The compulsory inspection on shore then does not seem to be an absolute sanitary necessity, whilst it has been shown that it can only be carried out by a system which will necessitate a very large expenditure of time and money.

13. (B) Disinfection on shore of contaminated or suspected articles. This can be carried out under the Bombay system. An infected case on board a vessel may be removed with all his baggage, as now is done to an observation camp, before leaving which kit can be and is now disinfected : and the vessel or parts of it where the case lay can be also dealt with.

14. The rules marked A (outward) drawn up in consultation with the Commissioner of Customs, and forwarded by him to Government, accordingly, are worded so as to permit of inspection on boardship as well as on shore, whilst in other respects they are adjusted to meet the requirements of paragraph 5 of Government of India letter No. 1623 of 1st June. They also provide for the segregation of actual plague and suspicious cases in plague hospitals and observation camps respectively and for disinfection of vessels and baggage.

An opening has been left in rule I, so that it can be made applicable to all vessels leaving Bombay for anywhere or to vessels bound for certain ports only, *e.g.*, Europe, Africa, etc.

II.

15. The rules marked B (inward) have been drawn up according to the instructions laid down in paragraph 12 of Government of India letter No. 1623 of 1st June, 1897, and it is proposed that they should be applicable to vessels arriving at Bombay from any infected port, Indian or foreign. Under them certain places for quarantine camps outside the city will be required, and it should be noted that no such places at present exist which are suitable for the purpose : whilst the Plague Committee's segregation camps inside the city are temporary and will not provide accommodation for from 600 to 800 people, which must be considered insufficient when it is borne in mind that one pilgrim ship alone, the *Pekin*, may arrive from an infected port such as Jeddah with more than 1,000 passengers.

No. 3070, dated Bombay, the 2nd July 1897.

From—SIR JAMES MACYABB CAMPBELL, K.C.I.E., I.C.S., Acting
Commissioner of Customs, Salt, Opium and Abkari,

To—The Secretary to the Government of Bombay, General Department.

In continuation of my letter No. 2915 of 24th June 1897, I have the honour to forward copy of the Collector Mr. Kennedy's views and the remarks which, after consulting the Health Officer of the port, I would offer in support of our original constructions.

2. I see no need for drawing up rules for the definition of the different classes of vessels suggested by Mr.

Collector's paragraph 4.

Kennedy in his paragraph 4. As suggested in my paragraph 4, it seems to me the better course to leave it to Government, in accordance with changing conditions, from time to time, to decide to what vessels and port the rules shall apply.

3. In this paragraph, Mr. Kennedy assumes that the crew are not to be examined on shore. He con-

Collector's paragraph 3.

siders that the rule should be drawn up on the assumption that the Venice Convention sanctions the boardship inspection of crews. I agree with the Health Officer of the port in doubting whether the framers of the Convention rules intended to have the crew examination on boardship. Our reasons are—

(a) The use of the expression "compulsory medical inspection Convention, Chapter I, of each person sailing on the Rule I, Notification II, ship.
page 3

(b) The use of the phrase, in paragraph 5 of the Government of India's letter under reply, "All passengers and crew are on board" implying that the crew have been out of the ship, presumably for inspection, and further implying that the Government of India's definition of person sailing in a ship includes both crew and passengers.

(c) If the details laid down in the Convention rules for the inspection of passengers do not apply also to crews, then the rules contain no provision for the inspection of that most important section of those who sail in ships, who, I agree with the Health Officer of the port, are more likely to be infected than passengers for Europe. The question of the relative danger from passengers and from crew is treated at length in paragraph 12 below.

2. The Collector holds that, as the Convention rules enjoin shore inspection, this procedure must at all

Collector's paragraphs 6, 7 and 8.
Under Pilgrimages, paragraph I,
Chapter I, page 3.

risk and cost be adopted. I venture to think that the exemption granted, in

the case of Batavia, shows that if satisfied of the necessity or of the advantage of any local system, the Convention are ready to modify their requirements. I also venture to think that the Health Officer of the port has shown that apart from the serious difficulties, the existing mixed board and shore inspection is on sanitary grounds better than the proposed rule forbidding any inspection except on shore.

5. In reply to the Collector's objection that, if the local system is introduced, other countries may raise difficulties on the ground that shore inspection has not been carried out in Bombay, I would remark that the Government of India can protect themselves by informing the signatories to the Convention beforehand of the proposed alterations and giving reasons for their adoption.

6. The Collector sees no impossibility in shore inspection. I venture to think that if crews are not exempted shore inspection will be impossible. And further that shore inspection of passengers, though possible, will be very difficult and very costly.

7. The Collector notices that in Bombay shore inspection already exists in the case of pilgrim ships. In paragraph 10 of my letter I have explained that in Bombay the shore inspection of pilgrims is carried out under restrictions which could not be enforced in the case of regular passenger ships. I would further point out that the average yearly number of pilgrim ships leaving Bombay is 20; and that, comparatively insignificant as that number is, the inconvenience caused to the ordinary traffic of the dock by the special procedure connected with the departure of pilgrim ships is very marked.

8. The Collector selects the case of a Peninsular and Oriental mail steamer. In doing so he selects the class in which difficulties are least though still noticeable. As passengers can hardly be prevented from going on board at any time, it follows that to secure inspection on shore medical attendance must be available throughout the day at one particular place, while for the departures by all other boats, including those from the docks and bandars, additional medical attendance must be provided at other places. Moreover, the Collector ignores any consideration of the difficulties pointed

Health Officer of Port, note 591, paragraph 10 (c), my letter, paragraph 7.

out both by the Health Officer of the port and by myself in regard to the departures of vessels from the wet docks with large numbers of native passengers.

9. The Collector considers that the rules he has formulated (paragraph 13) for Peninsular and Oriental departures can be adopted by other passenger steamers to Europe, China and Japan. On this point I have obtained the following note from the Health Officer of the port:—

“It is not clear why the Collector selects Chioa and Japan as countries to which the Venice rules should apply; or why he omits Africa which, judging by the numerous telegrams from the Government of India directing a most careful examination of all persons sailing for its ports, must be considered of sufficient importance to warrant its inclusion in the list of countries entitled to protection under the Convention rules. Nor is it evident on what grounds he omits Mauritius which can truly be described as the most quarantining place in the world. China, which the Collector includes, is the natural home of plague and its Emperor has not signed the Venice Convention; while Africa is now largely under the British Government and thus comes indirectly, if not directly, within the scope of the Convention.”

10. The Collector holds that the Local Government can supply its own rules in the case of vessels for any Indian or British port irrespective of the rules of the Venice Convention. Still it is to be remembered that under a recent order of the Government of India letter No. 1623, dated 1st June 1897, the Local Government rules regarding the inspection of ships are to be adjusted to the Convention rules.

11. With reference to the Collector's opinion that two small examination rooms on the Ballard pier and in the docks would suffice for inspection, the experience of the Health Officer of the port detailed in paragraph 7 of his note shows that, owing to the peculiar nature of the signs of plague, a somewhat elaborate arrangement for private examination is necessary.

12. The Collector does not think much danger of infection need be apprehended from the crew. As his view is opposed to that held by me and by the Health Officer of the port, I quote from a minute by Dr. MacCartie—

“The Commissioner's letter No. 2916, paragraph 7, points out that, in the case of vessels bound for the places mentioned by Mr. Kennedy, namely, Europe, China and Japan, the danger from the crew is much greater than from the passengers. That the Commissioner's

view is correct can easily be shown. Every Peninsular and Oriental Company's liner during the height of the plague on arrival in Bombay was, under the law and practice of the port, forced to discharge its native crew: by law the crew can and do claim their discharge. Three or four days, sometimes one day, before a vessel's departure another crew has been signed on the articles. This fresh crew has come from the slums of plague stricken Bombay, whilst the passengers who are almost all Europeans have come from up-country stations and boarded their vessels direct from the train. Even in the case of local passengers they have come from ports of Bombay comparatively free from plague. The natural result has been that during the height of the epidemic no passenger, except two postal officials, both natives, was removed on suspicion from any vessel. Whilst it was found necessary, in almost every instance to remove several of the native crew. The information Mr. Kennedy asks for as regards instances of vessels becoming infected through their crews has already been practically furnished in paragraph 12 of my note 591. This is the return on which the argument was based that as plague cases have been removed from vessels without infecting the rest of their passengers and crews, the Bombay rules which permit a person to board his vessel before inspection, whilst much more workable and cheaper, are no less efficient for the prevention of the export of plague than the Venice Convention Rules."

13. As regards the Collector's view that the master of the vessel

Collector's paragraph 18.

should be made responsible for the carrying out of plague rules by passengers, the Health Officer of the port holds that no such responsibility can be enforced. The following remarks seem to me to carry weight :—

"Ship commanders have stated to me over and over again that they cannot exercise complete control even over their crews, much less over their passengers. During the plague time when commanders have been asked to prevent their crews going on shore even from the stream, they have stated they were powerless to prevent them." Dr. MacCartie continues:—"Even if Government considers that a responsibility thrown on the commander and a few simple directions to the dock gate-keeper, as suggested by Mr. Kennedy be sufficient to ensure that the passenger inspected in the dock at say 5 P.M. is the same who sails in the vessel at 4 A.M., and that that passenger has had no communication with Bombay after boarding his vessel, I, as Port Health Officer, for the following reasons, refuse to consider that these simple checks are sufficient. Should any case of plague appear on a vessel after leaving this port upon whom will

the odium fall if not on the officer who signed the bill-of-health? The bill-of-health certifies to the health of all on board and no man can be asked to sign it unless he is certain that it is a true bill? And that all those inspected on shore have had no communication with shore after boarding their vessel and are those who were inspected by his staff. He could not possibly accept the ineffective and simple checks described as sufficient in paragraph 18 of Mr. Kennedy's letter."

14. The Collector seems to contemplate the disinfesting of pilgrims' baggage leaving Bombay.

Collector's paragraph 19. The reason why there is no special notice of disinfecting outward baggage is that provision is made for the treatment of the baggage of all infected passengers. The rules do not, it seems to me, contemplate any interference with baggage, except with baggage belonging to an infected passenger. In the second part of this paragraph (paragraph 20) the Collector expects that inspection work will not be permanently increased, because a few isolated or imported cases will not be held to make the port infected; but section II, Chapter II of the Convention lays down that one indigenous case officially reported sets agoing the whole machinery of the Convention rules. As has been noticed in my former letter to Government unless the concession of part shore part ship inspection is secured, this machinery includes the inspection of the ship and crew in one place and of the passengers in another place.

15. I trust that these further explanations may make more clear to Government the necessity of obtaining from the Convention the concession of an alternative inspection either on shore or on ship board.

No. 11521-C., dated Bombay, the 28th June 1897.

From—R. M. KENNEDY, Esq., Collector of Land Revenue, Customs and Opium,

To—The Commissioner of Customs, Salt, Opium and Abkari, Bombay.

I have the honour to report with reference to your No. 2917, dated 25th instant.

2. I have no sufficient experience to offer comments on the rules accompanying your letter.

3. However, there are a few points to which I should wish to draw attention and a few supplementary points on which I may offer comment.

4. In the first place it does not seem to me clear to what outward-bound vessels the Venice Convention rules should apply whether (a) to all vessels leaving Bombay during epidemic as the wording "for

the odium fall if not on the officer who signed the bill-of-health? The bill-of-health certifies to the health of all on board and no man can be asked to sign it unless he is certain that it is a true bill? And that all those inspected on shore have had no communication with shore after boarding their vessel and are those who were inspected by his staff. He could not possibly accept the ineffective and simple checks described as sufficient in paragraph 18 of Mr. Kennedy's letter."

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3. However, there are a few points to which I should wish to draw attention and a few supplementary points on which I comment.

4. In the first place it does not seem to me clear to sound vessels the Venice Convention rules should apply to all vessels leaving Bombay during epidemic.

- (b) The issuing of steam launch tickets to friends seeing passengers off. Such friends should also be examined, and a small fee might be charged if this were held advisable.
- (c) The rigorous examination of all without tickets from the steamer.
- (d) The rigorous exclusion from the steamer of all who do not come by the Company's launch from the Ballard pier. I would point out that such regulations would not only comply with the Venice Convention rules, but would also further order on the P. and O. Mail Steamer, and would prevent the danger which at present exists from the crowding of the steamer with all sorts and conditions of men (native servants and the like) for whose health there is no guarantee, and who, however, may introduce plague and render the steamer infected. Under regulations, such as are suggested, only those interested in passengers embarking would be likely to obtain admission on the ship.

14. Similar rules could be adopted for other passenger steamers for Europe, China, and Japan.

15. I believe there is already efficient examination on shore of coasting steamers. But I do not understand that the Venice Convention rules are intended to apply to vessels between British ports only, either in India, or between India and any other British port outside India. Rules for such ships in time of plague would be made by the British Government irrespective of the Venice Convention rules.

16. For shore examination of passengers it would be necessary to supply two small examination rooms on the Ballard pier and also in the docks. The cost of such rooms need not be excessive.

17. As I have already stated, I do not understand that the Venice Convention rules are intended to apply to the crews of vessels as (a) their examination on shore is impossible and (b) useless, as it could not prevent a vessel being an infected vessel by the discovery of any member of the crew being infected, as he would have come from the ship, and would therefore have made the ship infected before he came on shore for examination. Moreover, I do not think there is much danger to be apprehended from the crews, and it would be interesting to know if, during the recent plague epidemic, Surgeon-Major MacCartie has found any case in which a ship has become infected from illness among the crew.

18. In the case of the crews (and passengers) I think responsibility after medical examination should be thrown directly on the master of the ship, who should see that no one leaves the ship for any length of time, and in case any one does, that person should be precluded from returning to the ship. In the stream this could be

easily arranged, and in the docks the master could be materially assisted after dusk (when there would be most danger of such an occurrence) by a few simple instructions to the dock gate-keeper.

19. In the proposed rules for Bombay nothing seems stated as to the disinfecting of baggage of outgoing steamers. In the case of passengers for Europe, I do not think any disinfecting of the baggage of passengers who are themselves free from infection would be necessary. In the case of pilgrims it would seem advisable in times of epidemic to pass baggage through a disinfecting chamber.

20. Apparently it lies with the Bombay Government to declare when the port is infected. I trust the plague will not be endemic in Bombay; the decreasing mortality from plague (now almost at zero) does not indicate this. I presume, after it has once gone, the occasion hereafter of a few isolated and imported cases will not be held to render the port infected. The inspection work will not therefore be permanently increased, though it appears from Surgeon-Major Mac-Cartie's report that medical staff may require some increase.

No. 1904, dated Simla, the 6th August 1897.

No. 90.

From—J. P. HEWETT, Esq., C.I.E., Secretary to the Government of India,
Home Department,

To—The Secretary to the Government of Bombay, General Department.

I am directed to reply to your letter No. 4021, dated the 22nd July, on the subject of the contemplated alteration of the rules issued by the Government of Bombay under the Epidemic Diseases Act, 1897, and Act I of 1870, so as to bring them into accord with the provisions of the Venice Sanitary Convention of 1897. I am at the same time to forward, for the information of the Government of Bombay, a copy of correspondence with the Government of Bengal on the modification of the rules issued by that Government for the port of Calcutta.

2. The draft rules prepared by the Acting Commissioner of Customs, Salt, Opium, and Abkari, with the assistance of the Health Officer of the Port, which are forwarded with your letter, deal with the inspection of outward and inward bound vessels and are drawn up for the port of Bombay.

3. The most important point in connection with the rules for the inspection of outward bound vessels is the fact that these rules do not provide that the medical examination of each person sailing shall be made on shore. The advisers of the Government of Bombay point out that there are very grave obstacles to the examination on shore of all persons sailing, and the Governor in Council accepting this view asks that the convention may be so modified as to allow of

inspection on shore or on board, as the circumstances of any particular port may render necessary. After a careful consideration of the subject, the Government of India are constrained to accept the opinion of the Government of Bombay and their advisers, and to authorize the continuance of the practice at present adopted at the port of Bombay, under which the examination is made on board or on shore as may be convenient. In arriving at this conclusion the Governor General in Council has been specially influenced by the following considerations. Section II of Chapter I of the Venice Convention, relating to sanitary measures for ships sailing from infected ports, is divided into two portions—the first relating to ordinary vessels and the second relating to pilgrim ships. In the case of the latter the direction to examine on shore is followed by a remark that in carrying out this measure each Government may take local considerations and conditions into account, and a footnote explains that the Conference decided that in the Dutch Indies the inspection may be carried out on board ship. The Government of India agree with Sir James Campbell that, if the concession of examination on board can be made in regard to the most dangerous class of passengers, namely, pilgrims, it ought also to be made in the case of other persons should circumstances render this desirable. And it is shown that the circumstances of the port of Bombay render the concession imperative. It is pointed out that the most important portion of the examination is the examination of the crew, firstly because of the persons examined the greater number belong to crews of vessels, and secondly because experience has shown that the crews are much more likely to be infected than the passengers. It is further shown that in the case of the crews it is practically impossible to examine them all on shore, and that in the less important case of the passengers, though it is possible, it would give rise to very serious inconvenience both to the passengers and to the regular working of the port arrangements. Lastly, the Government of India attach particular importance to the great success that has attended the examination under the arrangements hitherto prescribed by the Government of Bombay, and they consider that this success is the strongest argument that can be urged for the continuance of those arrangements. I am to take this opportunity to state that the Governor General in Council fully shares in the appreciation of the admirable work done by Dr. MacCartie and his staff during the past six months, which is expressed by the Government of Bombay.

4. If, however, inspection on board is permitted, it will be necessary to modify the portion of Rule II of the draft rules for outward bound vessels which deals with the discovery of a case of plague during the

examination. As Rule II stands at present it permits the grant of a clean bill-of-health, even though a case of plague is discovered on board, provided that the patient is removed and that the other prescribed precautions are duly carried out. Rule I of the existing rules for the treatment of vessels leaving the port of Bombay, which are contained in the Resolution of the Government of Bombay, No. 656 ¹⁸⁸⁵₁₈₈₆, dated the 6th February, prohibits the departure of the vessel until she has obtained a clean bill-of-health, and permits the grant of a clean bill-of-health if the persons left on board are free from plague. Neither draft Rule II nor existing Rule I conforms to the requirements of the Venice Convention. On the one hand, if the measures prescribed by the Convention are duly carried out, the vessel may be allowed to depart, even though she cannot be certified to be healthy; on the other hand, if a case of plague is discovered on board, the fact must be stated in the bill-of-health. Chapter II, Section VIII of the Convention lays down the rule that a ship sailing from an infected port may only be considered as healthy if no case of plague has occurred on board either before departure, during the voyage, or on arrival. The adoption of the prescribed precautions on the occurrence of a case before departure cannot alter the fact that the vessel is infected. It is stated by Dr. MacCartie that during the height of the epidemic it was generally found necessary to remove some of the crew on suspicion, and that in some instances the suspected cases turned out to be true cases of plague. It does not appear necessary to mention in the bill-of-health the removal of a case on mere suspicion, for instance, the removal of a person suffering from fever without any other sign of plague. But if at the time of inspection on board a case is discovered, which is ascertained or believed to be plague, then it is clearly necessary to mention the fact in the bill-of-health. In such cases the precautions adopted should also be stated, including, if the patient has been living on board, the disinfection of the infected part of the vessel.

India, be made on shore, and they consider that this should be stated in the rule. It also appears from Sir James Campbell's letter of the 24th June that under present arrangements passengers are sometimes examined on shore. The rules should provide that in such cases persons suffering, or suspected to be suffering from plague, and their relatives and attendants, should not be permitted to embark.

6. Rule I commences with the words "no vessel shall leave the port of Bombay for any of the following ports." A blank is then left for the insertion of ports. In paragraph 7 of your letter under reply, it is stated that the Government of Bombay agree with Sir James Campbell that, when plague cases have become very few in Bombay, the inspection rules should be applied to certain classes of vessels only. They consider that so long as Bombay remains an infected port within the meaning of that expression as used in the Convention, individual medical inspection must be made of every person sailing in each vessel proceeding to any part of a country which is a party to the Convention; but that, as regards vessels proceeding to other ports, whether within or outside India, the inspection can be altered or discontinued at will. The Governor in Council hopes that the time is near when the inspection of vessels proceeding from Bombay may in some cases be relaxed or discontinued, and enquiry is made in your letter whether such alterations or discontinuance should be made without previous reference to the Government of India. I am to say that the Governor General in Council considers that for the present the rules must be maintained in their entirety in the case of vessels sailing to all ports whether in or out of India. In view of the great increase in the mortality in Bombay and of the recrudescence of plague in some of the surrounding districts, His Excellency in Council is of opinion that it would be unwise to relax any of the precautions at the present time. His Excellency in Council is also not at present convinced that the rules for vessels bound for Indian ports may be ultimately discontinued or relaxed before those for vessels sailing for ports out of India. The Government of India would therefore prefer that a reference should be made to them before the rules are discontinued or relaxed with reference to vessels sailing to any particular class of ports.

7. I am to observe that the inspection rules for outward bound vessels forwarded with your letter are framed only for the port of Bombay, and that no mention is made in your letter or its enclosures of any other port in the Bombay Presidency. As Karachi is still an infected port within the meaning of the Convention, the Government of India presume that vessels sailing from that port will be treated in the same way as vessels sailing from Bombay, and that the Government

of Bombay will, after considering the circumstances of the port, decide whether inspection should be made on board or on shore.

8. The Government of India consider that the draft rules for the inspection of vessels arriving at the port of Bombay, appended to Sir James Campbell's letter of the 24th June, are generally suitable and in accordance with the Venice Convention, but that they require modification in the following respects :—

- (1) In Rule III the Health Officer is given discretion, in the case of a healthy ship which has not completed ten days from the date of departure from an infected port, to (a) refuse *pratique* until the end of the ten days' period, or (b) until all persons on board have been subjected to medical supervision up to ten days from the date of departure. It is understood that alternative (a) contemplates the detention of all persons on board ship. The Government of India consider that this alternative is open to objection, and that, as is stated in paragraph 12 of my letter No. 1623, dated the 1st June, the passengers should be disembarked and kept under observation on shore. In this connection I am to invite attention to the convenient provision in Rule VIII (8) of the draft quarantine rules appended to the letter of the Bengal Government of the 17th July for the surveillance at their destination of healthy passengers on their giving and undertaking to submit themselves to surveillance by a medical officer.
- (2) In the last sentence of Rule IV the period of quarantine should be definitely fixed by the substitution of the word "should" for the word "may."
- (3) In Rule VI it should not be left to the discretion of the Health Officer to allow the healthy passengers and crew of an infected vessel to land for the purpose of being kept under observation. As is stated in paragraph 11 of my letter of the 1st June, it should be obligatory to land the healthy and keep them under observation on shore. An exception to this rule should only be made in the case of those members of the crew whom it is necessary to detain on board for the care of the vessel.
- (4) It appears to the Government of India that the form of the draft quarantine rules appended to the letter of the Government of Bengal of the 17th July is in some respects preferable to the form of the draft rules appended to Sir James Campbell's letter. In especial the Bengal rules are directed to meet the case of all infected and suspected

ships whatever their port of origin, and they follow more closely the form of the Venice Convention. I am to suggest that the form of the draft rules forwarded with your letter might be re-modelled on the lines of the draft rules for the port of Calcutta.

9. In your letter and its enclosures no mention is made of the quarantine rules enforced at ports in the Bombay Presidency other than the port of Bombay. The rules now in force at Karachi, which were issued under Act I of 1870 in the notification of the Government of Bombay, No. 592, dated the 3rd February, and the rules now in force at other ports on the Bombay Coast, which were issued under the Epidemic Diseases Act, 1897, in the notification of the Government of Bombay, No. $\frac{1211}{1101}$, dated the 6th March, are not in all respects in accordance with the Venice Convention. I am to suggest that the rules for Karachi and for the other ports on the Bombay Coast, where the Government of Bombay consider it necessary to still maintain an inspection of the inward sea traffic, should be modified in the same way as the rules for the port of Bombay. If the present rules for Karachi, which issued under Act I of 1870, are superseded by new rules framed under the Epidemic Diseases Act, it will be necessary to cancel the existing rules by a notification under Act I of 1870.

10. The case of the Aden quarantine rules requires special notice. With effect from the 5th October and the 13th October, respectively, the Government of Bombay published, under Act I of 1870, quarantine rules against Bombay and Karachi for the ports of Aden, Perim, and the Somali Coast. These rules were the usual quarantine rules based on the model B Quarantine Rules framed by the Government of India in 1888. They are still in force, but certain alterations, have been

made in them, of which the most important is the imposition* of ten days' quarantine from the date of the departure of the vessel on persons landing at Aden. It was also decided in the correspondence ending with your telegram of the 30th April that the Health Officer must not visit the vessel until the ten days' period expires, and that vessels merely using Aden as a port of call need not be examined at that port.

In my telegram No. 1007, dated the 18th March, it was requested that revised rules giving effect to these decisions might be drawn up, and in your reply of the 30th April it was stated that the Resident at Aden had submitted proposed rules which required some revision. The Government of India have not yet received these revised rules,

The rules at present in force at Aden are in several respects opposed to the Venice Convention and the instructions contained in my letter of the 1st June. Rule IV prescribes fifteen days' quarantine for infected vessels. There is no provision in the rules for landing the sick and keeping them in an isolation hospital. The healthy are only landed and kept in segregation at the discretion of the Health Officer. The rules thus permit the detention of the sick and healthy together on board ship, a procedure which, in the opinion of the Government of India, is open to grave objection. There is also no provision in the rules for the disinfection or destruction of contaminated articles and for the disinfection of the ship. The Government of India recognize that in the case of Aden the imposition of quarantine rules is complicated by the importance of keeping the port clean in the eyes of the world. But if proper arrangements are made and proper precautions taken, the enforcement of the regulations prescribed by the Venice Convention will not, in the opinion of the Government of India, injure the reputation of the port. I am to say that the Governor General in Council will be glad if the Government of Bombay will, bearing these matters in mind, consider the measures to be taken for the treatment at Aden in accordance with the Venice Convention, of vessels from infected ports, in such a manner that the health of the port may not be injured nor its reputation endangered.

No. 5380, dated Bombay Castle, the 4th October 1897.

No. 91.

From—J. DEC. ATKINS, Esq., I.C.S., Secretary to the Government of Bombay, General Department,

To—The Secretary to the Government of India, Home Department (Sanitary).

With reference to the correspondence noted in the margin, I am

Letter to the Government of India, Home Department, No. 777, dated 12th February 1897.

Telegram from the Government of India, Home Department, No. 683, Sanitary, dated 22nd February 1897.

Telegram to the Government of India, Home Department, dated 25th February 1897.

Telegram from the Government of India, Home Department, No. 889, Sanitary, dated 9th March 1897.

Telegram to the Government of India, Home Department, dated 30th April 1897.

directed to submit, for the approval of the Government of India, the accompanying draft of rules framed in accordance with the principles of the Venice Convention for the treatment at Aden of vessels arriving there from ports declared to be infected with plague. I am at the same time to forward extracts from a report by the Resident at Aden on the subject.

2. With reference to the remark of the Resident that the Port Surgeon cannot proceed on board a vessel in quarantine "without compromising himself," I am to observe that though this consideration was of some importance so long as Egypt or European nations were at liberty to impose quarantine against Aden without assigning definite reasons for their action, yet now it ceases to have any weight, as, in accordance with the principles of the Venice Convention, Aden can only be treated as an infected port if plague actually exists there. It would in the opinion of this Government be out of the question to consider a scheme for maintaining a floating hospital with a medical officer perpetually in quarantine so long as plague existed at any port wherefrom vessels might arrive at Aden.

3. His Excellency the Governor in Council is inclined to agree with the Resident at Aden that, with the existing medical staff, it is impossible to arrange for the proper medical inspection of a ship, except by day light.

4. With reference to the want of a disinfecting stove at Aden I am to state that the Surgeon-General is being consulted on the subject, and, if necessary, a further reference regarding it will be made to the Government of India.

5. The Resident proposes that, as vessels cannot be admitted to pratique during the night time, the usual form of report should be sent on board of onward bound vessels to be filled in by the commander or medical officer. To this there seems to the Governor in Council to be no objection.

ACCOMPANIMENTS TO THE LETTER TO THE GOVERNMENT OF INDIA,
NO. 5380, DATED 4TH OCTOBER 1897.

*Rules applicable to vessels arriving at Aden from Ports infected
with Plague.*

Rule I.—The commander of every vessel, including buggalows or other native craft, arriving at Aden from an infected port shall, before entering the harbour, hoist a yellow flag (or, if entering the port at night-time, exhibit two red lights one above the other at the main) and indicate by signal the port from which such vessel has come, and shall keep such flag and signals flying until permitted to take them down. The pilot on going alongside a vessel from an infected port shall direct the flag prescribed above to be hoisted if it has not been already done.

Rule II.—Such commander shall not, except as hereinafter provided, allow any communication, except orally, with the shore or with

any other vessel or boat, except the pilot boat, with which communication shall be limited to receiving the pilot who shall proceed straight to the bridge.

Rule III.—No vessel shall be given pratique until ten days from the date of its departure from an infected port. A vessel which carries no qualified medical officer shall not be given pratique until ten days from the date of its arrival in Aden. Until the 'ten days' period has expired, a vessel shall, during its stay at Aden, remain at the quarantine anchorage appointed from time to time by the Resident by general or special order in this behalf. Until a vessel has been given pratique, it shall have no communication with the shore.

Rule IV.—On the arrival of a vessel, whose destination is Aden, an officer appointed for the purpose by the Resident shall go alongside and ascertain whether ten days have or have not expired since its departure from an infected port.

(a) If ten days have expired since its departure from an infected port, and if it carries a qualified medical officer, the officer appointed for the purpose shall board the vessel and make such inquiries and inspection as he thinks necessary, and may require a declaration on oath from the medical officer of the vessel or the captain, or both, as to the existence of plague or suspected plague on board the vessel either during the voyage or before its departure. He shall then declare whether the vessel is "healthy," "suspected" or "infected," as defined in Rule VII. If he is satisfied that the vessel is "healthy" it shall be given pratique forthwith. If he declares it to be "suspected" or "infected," it shall be dealt with in the manner prescribed in Rule VII.

(b) If on the arrival of a vessel it is ascertained that ten days have not expired since its departure from an infected port, or if it carries no qualified medical officer, it shall be detained at the quarantine anchorage until, in the former case, ten days have expired since its departure from an infected port, or, in the latter case, ten days have expired since its arrival at Aden, after which the officer appointed for the purpose shall take the measures specified in clause (a) of this rule, and classify the vessel :

Provided, however, that the officer appointed for the purpose may, at any time before the expiration of the aforesaid period of ten days make such inquiries and inspections as he thinks necessary ; and if, as the result thereof, he comes to the conclusion that the vessel is "infected," he shall forthwith, and without waiting for the expiration of the ten days' period, order it to be treated as infected.

Rule V.—On the arrival of a vessel, which is onward bound, and which uses Aden as merely a port of call, the officer appointed for the purpose by the Resident shall go alongside and ascertain whether ten days have or have not expired since its departure from an infected port.

(a) If ten days have expired since its departure from an infected port, and if it carries a qualified medical officer, and if the officer appointed for the purpose is permitted to make such inspection as he thinks necessary, and, as the result thereof and as the result of any inquiries he may make, is satisfied that the vessel is "healthy," the vessel shall be given pratique. Otherwise it shall remain in quarantine at the anchorage appointed for the purpose by the Resident during its stay in port; no persons shall be landed therefrom, except at the quarantine camps appointed by the Resident, and no communication with the shore or with other vessels shall be allowed, except the landing of mails in quarantine and the embarkation and disembarkation of passengers in quarantine.

(b) If ten days have not expired since its departure from an infected port, or if it carries no qualified medical officer, it shall remain in quarantine at the quarantine anchorage appointed for the purpose during its stay in port.

N.B.—No inspection of a vessel under Rules IV and V shall ordinarily be made, except by day-light.

Rule VI.—These rules shall not prevent the transshipment, in quarantine, of passengers or other persons or mails or cargo from a vessel in quarantine to another; provided that thereafter the latter vessel shall be in quarantine.

Rule VII.—For the purposes of these rules a "healthy" vessel means—

"A vessel which has had no case of plague on board and which has left an infected port ten days or more previously."

A "suspected" vessel means—

"Any vessel, on board which there has been a case of plague at the time of departure or during the voyage, but on which no fresh case has occurred for twelve days."

An "infected" vessel means—

"Any vessel with plague on board, or on board which one or more cases have taken place within twelve days."

The only measures which the authorities of the port of arrival may enforce with regard to "healthy" vessels are those which are prescribed for "suspected" vessels (medical inspection, disinfection, pumping out the bilge-water and the substitution of good drinking water for the water on board), except that the measures prescribed

for the disinfection of the vessel itself may not be enforced in the case of healthy vessels.

The following treatment is prescribed for "suspected" and "infected" vessels, respectively:—

Suspected vessels are subject to the following measures which will be carried out under the orders and supervision of the officer appointed for the purpose:—

1. Medical inspection.
2. Disinfection; the soiled linen and personal effects of the crew and passengers, which in the opinion of the officer appointed for the purpose may be regarded as contaminated, should be disinfected.
3. Pumping out the bilge-water after disinfection, and the substitution of good drinking water for the water stored on board.
4. Disinfection of all parts of the vessel which have been inhabited by plague patients, and any other measures of disinfection that may be ordered by the officer appointed for the purpose.

A watch should be kept over the health of the crew and passengers for ten days from the date of arrival of the vessel; and

the crew should not without the special permission of the officer appointed for the purpose be allowed to land, except on duty.

Infected vessels are subject to the following rules:—

1. The sick will be immediately disembarked and isolated.
2. The other persons on board should also, if possible, be disembarked and kept under observation or surveillance* for a period varying according to the sanitary condition of the vessel and the date of the last case, but which must not exceed ten days.
3. The soiled linen and personal effects of the crew and passengers, which in the opinion of the sanitary authority of the port may be considered as infected will be disinfected.
4. The bilge-water will be pumped out after disinfection, and good drinking water will be substituted for the water stored on board.
5. All parts of the vessel which have been inhabited by plague patients should be disinfected, and such other measures of disinfection shall be taken as may be ordered by the officer appointed for the purpose.

Rule VIII.—The Resident shall have full power, subject to any orders that may be issued by the Government of Bombay, to make regulations or pass orders regarding the administration of quarantine camps and hospitals, whether ashore or afloat, and regarding quarantine anchorages, and all persons concerned shall be bound to obey such regulations and orders. Any vessel objecting to submit thereto, or to any of the measures indicated in these rules, shall, however, be free to put back to sea.

Rule IX.—Any mails or cargo which may be brought by any vessel arriving from an infected port shall be landed under such

*The expression 'observation' means segregation of the passengers, either on board a vessel or in a lazaretto, till they have obtained *free pratique*. The expression 'surveillance' means that the passengers will not be isolated; they will at once obtain *free pratique*, but on arriving at their destination they will be kept under medical surveillance.

precautions as the officer appointed for the purpose may deem necessary to prevent the spread of the disease.

Rule X.—It will be the duty of the port officer to facilitate the conveyance to all vessels in quarantine of such supplies of provisions, stores and other articles as may be required by those on board. Such supplies will be placed on the boats of the vessels in quarantine to be subsequently removed by members of their crews.

Rule XI.—All vessels arriving at Aden, which may have communicated with vessels coming from an infected port, shall be subjected to the same rules as vessels arriving at Aden from an infected port.

Rule XII.—All vessels which have undergone medical inspection and quarantine in the manner above prescribed should have the fact clearly stated on their bills of health.

Extracts from the letter from the Political Resident, Aden, referred to in paragraph 1 of the letter to the Government of India.

Rule IV, paragraph 2.

The view hitherto held at Aden is that the Port Surgeon cannot proceed on board a ship in quarantine without compromising himself. If this view is correct—and by “inspection” in this paragraph personal inspection on board is meant—it would follow that the Port Surgeon would himself be in quarantine if he inspected a vessel before the completion of the ten days therein referred to.

Were there to be in Aden a floating hospital, with a medical officer or officers practically in perpetual quarantine, this would not matter; but so long as the Port Surgeon is the “officer appointed for the purpose,” and assuming that the fact of his boarding a vessel in quarantine would compromise him, I would suggest the omission of the words “and inspection” in the second line of this paragraph.

If it is held that a medical officer can proceed on board a vessel in quarantine without compromising himself, then the words above noted may stand.

Rules IV and V.

In both these rules it should be made clear that the “inspection” therein referred to can only be made by day-light.

Any inspection by night must necessarily be incomplete and unsatisfactory, and with no one to assist him, the Port Surgeon could not be expected to do this duty by night.

I would suggest the addition of the words “by day-light” after the word “inspection” wherever it occurs in these two rules.

In regard to giving effect to the rules the Port Surgeon has drawn attention to the following facts:—

(a) That while disinfection is to be mainly relied on in future for the treatment of infected ships, there is no disinfecting store

enhanced by the practice of passengers going on board at other points than the jetties, and when pressed for time proceeding by train to Diamond Harbour to embark there. The inconvenience felt was brought to the notice of Government in the representation from the Liners' Conference of Calcutta and the Bengal Chamber of Commerce (a copy of which was communicated to the Government of India with this office letter No. 355-T.-M., dated 12th June 1897) in connection with the working of Rule 4 of Plague Notification No. 3 of the 25th May. It was urged that before that rule was enforced, it was the invariable custom to obtain the bill of health, port clearance, etc., while the loading was being completed, so that the vessel might leave the next morning. In the case of steamers, work went on throughout the night, and often up to the very moment of starting. Under Rule 4 this could not be done, for a vessel completing her loading on a Friday evening had to wait for her bill of health which, when obtained, had to be presented at the Custom House for port clearance, and, if the vessel were foreign bound, taken to a Consul for countersignature. By the time all this was done, it would be too late for a start, and the ship would have to remain where she was till Sunday. In the case of a ship finishing her loading on a Saturday, two days would be lost, as a bill of health, or certainly a port clearance, could not be obtained on Sunday, and the vessel would, therefore, be detained till Tuesday. Then, again, by the time the Custom House was open, the tide would usually be lost; and, further, there are frequently two or more vessels clearing in one day, which would naturally delay the Port Health Officer.

5. The Plague Notification No. 3 of the 25th May has, therefore, been further revised, so as to bring its provisions into accord with the instructions contained in paragraph 5 of your letter under reply and paragraph 3 of your letter No. 1674 of the 9th June 1897, and with a view to meet at the same time the objections urged upon this Government by the shipping representatives, and the difficulties which must attend the carrying out of such regulations in a tidal port like Calcutta. A copy of the revised draft of the notification is submitted for the approval of the Government of India. An endeavour has been made to minimise the inconveniences complained of by the Liners' Conference by the expedient adopted in Rule 1 of the notification of appointing commissioned medical officers to grant certificates to passengers and making them form part of the bill of health, and by omitting all reference to cargo in the bill of health. People who want to go on board at Diamond Harbour or Garden Reach, instead of at the docks or jetties, will obtain a certificate from one of the Presidency Surgeons, and this certificate will be attached to the bill of health. As it is proposed to invest only Presidency Surgeons with power to

grant such certificates, the Officiating Lieutenant-Governor does not anticipate that any objection can be taken to this course. As regards cargo, no inspection or examination of it is, or can possibly be, made by the Health Officer; he cannot ascertain by merely looking down the hatchways whether the cargo is infected or not. The Convention requires the Health Officer to disinfect suspected articles, and this has been provided for in Rule 3. Under paragraph 9 of your letter, the mercantile community of Calcutta will be asked to consider whether, in order to protect the clean ports, prohibitive orders should issue with regard to all or any of the susceptible articles mentioned in the Convention. If it is decided to issue such orders, both Rule 3 of Plague Notification No. 3 and the bill of health will have to be modified. But the reference will take time, and His Honour does not consider it necessary to delay the issue of the Plague Notification on this account.

6. In connection with the use of a "disinfection lighter," referred to in Rule 3, I am to observe that a proposal is now under consideration to have a floating disinfector for the Port of Calcutta. A large-sized Equifex disinfector, which has been ordered by the Calcutta Municipality, will be mounted on a barge or cargo-boat and kept on the river, and will be available for use by the Town and Port of Calcutta, as well as by the Municipality of Howrah and other Municipalities on the river's edge. This will in many cases be more convenient for suspected articles than disinfection on shore, and will frequently be the only means of effectually disinfecting a ship which has no disinfecting stove.

7. Rule 5 has been drafted so as to avoid, as far as possible causes for detention, while maintaining sufficient precautions against a breach of the terms of the Convention. Under clause (b) of the rule, the Collector of Customs has been authorized to grant port clearance under section 66 of the Sea Customs Act on a guarantee being given by the agents of a vessel that within 48 hours of departure they will produce a duplicate copy of the bill of health, as finally granted, signed by the Port Health Officer, or an additional Port Health Officer, and that if for any reason the Health Officer should refuse to grant the bill of health, they will bring the vessel back to her moorings.

8. No provision has been made in the notification for a Consular Officer being present at the medical inspection of passengers who are passed by a medical officer other than the Port Health Officer, under the proviso to Rule 1. But this point is not likely to be pressed. Only Presidency Surgeons would be appointed under the proviso, and Consular Officers would doubtless accept their certificates.

9. I am at the same time to submit, for the approval of the Government of India, a copy of a draft of the quarantine rules for the

port of Calcutta, which have been revised with reference to Chapter II, section VIII of the Convention and paragraph 10 of your letter commenting thereon, which it is proposed to issue in the Marine Department of this Government. Rule IV enjoins that if there is any case of sickness on board, and the pilot has reason to believe that it is plague, he shall telegraph to the Health Officer from Saugor, and shall not proceed beyond Diamond Harbour without the permission of the Health Officer. In this connection, I am to observe that strong feeling was evoked in Calcutta some months ago by the proposal to embark at Diamond Harbour pilgrims proceeding to the Hedjaz. In point of fact the scheme was a *pis-aller*. It was argued, however, that in the view of foreign nations Diamond Harbour was the same as Calcutta, and that the formation of a plague camp there would lead to Calcutta being quarantined. To this argument it may be replied that Diamond Harbour has, ever since 1894, and, indeed, long before that, been the quarantine station of Calcutta, and plague patients *disembarked* there for isolation, etc., are just as likely to damage the reputation of Calcutta as pilgrims *embarked* there. Only recently, in fact, a return ship load of 443 pilgrims, who had come from the infected port of Jeddah, was disembarked and disinfected there. But, apart from this possibly sentimental objection, there is some real danger that whatever precautions may be taken plague may be communicated to the coolies, stevedores and other persons connected with shipping who work at Diamond Harbour, and pass between there and Calcutta. For these reasons it seems to the Officiating Lieutenant-Governor desirable that an attempt should be made to find another quarantine station, and the Sanitary Commissioner, Bengal, has been requested to report on the question in communication with the Port Officer and the Port Commissioners. A separate communication will be addressed to the Government of India as soon as this report is received.

10. Meanwhile, I am to ask that any orders that the Government of India may pass on the revised Plague Notification No. 3, and on the revised Quarantine Rules, may be communicated to this Government at an early date.

No. 1905, dated Simla, the 6th August 1897.

From—J. P. HEWETT, Esq., C.I.E., Secretary to the Government of No. 93.
India, Home Department,

To—The Officiating Secretary to the Government of Bengal, Municipal
(Medical) Department.

I am directed to reply to your letter No. 3718 (Medical), dated the 17th July, on the subject of the revision in accordance with the Venice Sanitary Convention of the rules issued by the Government of Bengal for the prevention of the spread of plague infection by

vessels departing from and arriving at the port of Calcutta. I am at the same time to forward, for the information of the Government of Bengal, a copy of correspondence with the Government of Bombay with regard to the alteration of the rules issued by that Government under the Epidemic Diseases Act, 1897, and Act I of 1870, so as to bring them into accord with the provisions of the Venice Convention.

2. Paragraphs 4 to 8 of your letter under reply discuss the draft rules prescribing the measures to be taken on the departure of vessels from the port of Calcutta, contained in draft Plague Notification No. 3 appended to your letter. In paragraph 5 of my letter No. 1625, dated the 1st June, and in paragraph 3 (ii) of my letter No. 1674, dated the 9th June, it was desired that in conformity with the Convention all persons sailing on the vessel should be examined on shore prior to the departure of the vessel. In paragraph 4 of your letter under reply the Government of Bengal represents that, owing to the peculiar conditions of the port of Calcutta, it is difficult to comply with this requirement of the Convention without interfering with the convenience of passengers, and possibly causing steamers to miss a tide. In the succeeding four paragraphs an account is given of the measures proposed with a view to minimize this inconvenience and the possibility of delay. It will be seen from the correspondence with the Government of Bombay forwarded with this letter that it has been found impossible to insist on the examination of all persons on shore in the case of vessels sailing from the port of Bombay, and that the Government of Bombay have been authorized to retain the existing procedure which has been worked with marked success, and under which the examination is made on board or on shore as may be the more convenient. As it has thus been found impossible to comply literally with this requirement of the Convention at the infected port of Bombay, the Government of India will no longer press for compliance in the case of the uninfected port of Calcutta, and they therefore authorize the continuance at that port of the more convenient procedure of examination on board. I am to add that the Government of India have no objection to the proposed arrangements under which (i) the bill of health will contain no reference to the cargo; (ii) the Collector of Customs will be authorized to grant port clearance on a guarantee being given by the agents of a vessel that within 48 hours of departure they will produce a duplicate copy of the bill of health as finally granted, signed by the Port Health Officer, and that if for any reason the Health Officer should refuse to grant the bill of health, they will bring the vessel back to her moorings; and (iii) the disinfection of contaminated or suspected articles will be performed either on shore or on a lighter.

3. The only matter in connection with the regulations about which I am to invite the special attention of the Government of Bengal is the procedure to be followed when a case of plague is discovered at the time of the examination on board. Rules 2 and 3 of draft Plague Notification No. 3 correctly define the precautionary measures which are to be adopted when a case of plague is discovered on board, but Rule 8 permits the grant of a clean bill of health when these precautions have been duly carried out. This latter provision is not in accordance with the terms of the Convention which permit a vessel sailing from an infected port to be treated as healthy only when no case of plague has occurred either before departure, during the voyage or on arrival (Chapter II, section VIII). The adoption of the prescribed precautions cannot alter the fact that the vessel is infected. If, therefore, a case which is ascertained or believed to be plague is discovered during the examination on board, the fact must be stated in the bill of health, together with the precautionary measures adopted.

4. I am to request that, with the permission of His Honour the Lieutenant-Governor, the rules in draft Plague Notification No. 3 may be revised in accordance with the remarks in the preceding paragraph.

5. The draft quarantine rules forwarded with your letter appear to the Government of India to be generally well adapted to meet the requirements of the Venice Convention. I am to convey the following observations with regard to them for the consideration of His Honour the Lieutenant-Governor:—

- (1) The draft notification is framed under the Quarantine Act, I of 1870, and the Epidemic Diseases Act, 1897. The Government of India consider that it will be more convenient that the rules should issue under the Epidemic Diseases Act alone. The reference in the draft notification to the sanction of the Governor-General in Council will then be unnecessary, but a notification should issue under Act I of 1870, cancelling the existing quarantine rules for the port of Calcutta which have been issued under that Act.
- (2) The draft notification states that "the Lieutenant-Governor of Bengal has been pleased to make the following rules for quarantine against plague, etc." In this form the rules would be of permanent application, and would therefore be contrary to the orders contained in paragraph 4 of Home Department Resolution No. 8—95 (Sanitary), dated the 9th May 1897. I am to suggest that the wording might be altered to the following: "The Lieutenant-Governor of

Bengal has been pleased to prescribe as a temporary measure the following rules for quarantine against plague."

- (3) In Rule I the following definition is given of the term *observation*: "The term *observation* means that the persons subjected to it will be segregated on board ship or in a lazaretto or isolation camp till they have obtained free pratique." It appears from Rules VIII (6) and IX (3) that the words "on board ship" in this definition mean on board the ship on which the person arrived. This is not in accordance with the definition of the term *observation* contained in the footnote to Chapter II, section VIII of the Venice Convention. The words there used are "on board a ship" (*à board d'un navire*), meaning on board a vessel used as a lazaretto. The Government of India consider that the words "on board ship" should be struck out of the definition in Rule I; and that, in accordance with the instructions contained in paragraphs 11 and 12 of my letter No. 1625, dated the 1st June, healthy passengers should never be detained on board ship, but should be landed, and, when necessary, kept under observation or surveillance on shore. I am to request that, with the permission of His Honour the Lieutenant-Governor, Rules VII (3), VIII (6) and IX (3) may be revised in accordance with these instructions. In the case of infected ships [Rule VII (3)], no one among those arriving on the vessel should be left on board, except the persons, if any, whose presence is necessary for the care of the vessel.

6. With reference to the remarks contained in the last paragraph of your letter, I am to say that the Government of India have no objection to the establishment of a new quarantine station further removed than the present station from the persons connected with the shipping work at Diamond Harbour. If due precautions are taken, it does not appear to the Government of India to be likely that foreign Governments will take any objection to measures which are carried out in accordance with the regulations prescribed by the Venice Convention.

No. 94.

No. 4345-Medical, dated Calcutta, the 21st August 1897.

From—C. E. A. W. OLPHAM, Esq., Officiating Secretary to the Government of Bengal, Municipal (Medical) Department,

To—The Secretary to the Government of India, Home Department.

With reference to the correspondence ending with your letter No. 1905, dated the 6th August 1897, I am directed to submit, for the information of the Government of India, a copy of revised Plague

Notification No. 3, dated the 17th August 1897, which has been issued by the Lieutenant-Governor, prescribing rules for the inspection of vessels leaving the ports in this province for non-Indian ports.

No. 3, dated Calcutta, the 17th August 1897.
NOTIFICATION—By the Government of Bengal.

In exercise of the powers conferred by section 2 of the Epidemic Diseases Act, III of 1897, and by the Notification of the Government of India in the Home Department, No. 302, dated the 4th February, and in supersession of Plague Notification No. 3, dated the 25th May 1897, which is hereby cancelled, the Lieutenant-Governor of Bengal is pleased to declare that all vessels and persons leaving the under-mentioned ports in Bengal for ports out of India shall be subjected to the rules in the Regulation hereinafter set forth:—

Calcutta.	|	Balasore.	|	False Point.
Chittagong.	|	Chandbally.	|	Puri.

RULES.

1. *Medical inspection and bill of health.*—No vessel shall leave any such port for any port out of India until she has been inspected by the Health Officer of the Port, and the master or person in charge of such vessel has obtained from such officer a bill of health in the form given below, stating that the master or person in charge, officers, crew and passengers (if any) of such vessel have been inspected by him by day at the time of embarkation, and are free from infectious disease dangerous to life and from the bubonic plague: Provided that in the case of passengers a certificate in the form annexed as Appendix I, by a commissioned medical officer appointed for this purpose, and dated not more than twelve hours before the departure of the vessel, shall be accepted in lieu of examination by the Port Health Officer. Such certificates shall be annexed to, and form part of, the bill of health.

2. *Removal of infected persons.*—Should the Health Officer of the Port be of opinion that any person on board of any vessel so inspected is suffering from bubonic plague or is not free from the infection of the plague, such person and all his relations and non-medical attendants shall be removed from the vessel to a plague hospital or place of observation appointed by Government, and such parts of the vessel as have been frequented by such person or his relations and attendants shall be disinfected to the satisfaction of the Health Officer. When a case which is ascertained or believed to be plague is discovered on board, the fact shall be stated in the bill of health, as well as the precautionary measures adopted.

3. *Disinfection of suspected articles.*—All contaminated or suspected articles shall be thoroughly disinfected on shore, or in the disinfection

lighter, under the supervision of the Port Health Officer, in the manner prescribed in Appendix II.

4. *Fresh bill of health when necessary.*—After the master or person in charge of the vessel has obtained a bill of health under the provisions of these rules, no person shall be admitted on board such vessel before she leaves the port, unless such vessel is again inspected by the Health Officer of the Port, and another bill of health obtained from such officer by the master or person in charge of such vessel.

5. *Port clearance.*—(a) Except as provided for in clause (b) of this rule, no port clearance shall be delivered to any vessel bound from any such port to any port out of India, unless and until the master or person in charge thereof shall produce the bill of health so to be obtained as aforesaid; and it shall be the duty of Customs Officers to refuse delivery of the port clearance, without the production of such bill of health:

(b) Provided that the Collector of Customs may grant port clearance under section 66 of the Sea Customs Act on a guarantee being given by the agents of a vessel, that within 48 hours of departure they will produce a duplicate copy of the bill of health as finally granted, signed by the Port Health Officer or an additional Port Health Officer, and that if for any reason the Health Officer should refuse to grant the bill of health, they will bring the vessel back to her moorings.

6. *Health Officers.*—The duties of Health Officers under these rules shall be discharged by the medical officers named below, or by such other medical officer or officers as may from time to time be appointed for such purpose by the Lieutenant-Governor:—

Health Officers.

Calcutta ...	... Port Health Officer and Additional Port Health Officers.
Chittagong	... Civil Surgeon.
Narayanganj	... Civil Hospital Assistant, Narayanganj.
Balasore	... Civil Surgeon.
Chandbally	... Civil Hospital Assistant, Chandbally.
False Point	... Ditto Jambu.
Puri ...	... Civil Surgeon.

Bill of Health.

This is to certify that the ship (or steamer) sailing
under the flag and under the command of as

* Including officers and able-bodied master, of tons, bound for
seamen. with a crew of persons*
and passengers, is at the time of leaving this port in a satisfactory sanitary condition, and that no case of infectious disease

dangerous to life, or of bubonic plague, exists among her officers, passengers or crew, all of whom have been inspected by me, with the exception of the persons named below, by day at the time of embarkation.

It is further certified that the town and port of

* Or as the case may be. are at present* *free from* plague, epidemic cholera, yellow fever and all other dangerous epidemic diseases.

The persons named below, who are personally known to me, or whose identity has been proved to my satisfaction, have produced the annexed certificates from medical officers duly appointed in this behalf.

APPENDIX I.

CERTIFICATE.

I do hereby certify that I have examined
a passenger on the ship _____, not more
than twelve hours before the departure of the ship from the port of
_____, and find him in good health, except as noted
in the margin, and free from any symptoms of bubonic plague.

Rank.

Official designation.

Specially appointed under Rule 1 of Plague Notification No. 3; dated the 17th August 1897, to examine passengers leaving the port of _____ by sea.

APPENDIX II.

Under-clothing, bedding, wearing apparel, mattresses, carpets, etc., which are contaminated or *suspected*, should be disinfected in stoves at *normal pressure, or at a pressure of from one-and-a-half to two degrees, with or without the presence of steam.*

Before a stove is passed as efficient for the purposes of disinfection, it should be subjected to a test, with the aid of a signal thermometer, showing the moment when the temperature in the middle of a mattress rises to at least 100° (centigrade).

To ensure that the disinfection is effective, this temperature must be maintained for from 10 to 15 minutes.

Disinfecting solutions—

(a) Solution of corrosive sublimate, of 1 part in 1,000, with the addition of 10 parts of chloride of soda.

The solution should be coloured with aniline dye or indigo. It should not be placed in metal vessels.

(b) A 5 per cent. solution of pure crystallized carbolic acid, or 5 per cent. of crude commercial carbolic acid, in a warm solution of soft soap.

The carbolic solutions will be useful, more particularly for disinfecting articles, such as metals, instruments, etc., which can neither be subjected to a temperature of 100° centigrade, nor placed in contact with corrosive sublimate. They may also be used at ports not provided with a disinfecting stove of the prescribed pattern.

No. 95.

No. 1612-Marine, dated Calcutta, the 27th August 1897.

From—COLONEL A. D. McARTHUR, R.E., Secretary to the Government of Bengal, Marine Department,

To—The Secretary to the Government of India, Home Department.

With reference to your letter No. 1905 of the 6th instant, to the address of the Secretary to this Government in the Municipal (Medical) Department, I am directed to submit, for the information of the Government of India and for publication in the *Gazette of India*, copies of Notifications Nos. 160-Marine and 161-Marine, dated, respectively, the 24th and 27th instant: (1) publishing rules for quarantine against plague for the port of Calcutta issued under Act III of 1897, and (2) cancelling the rules for quarantine published in the Notifications noted

Notification No. 126-Marine, dated in the margin issued by this Government the 20th October 1896.

Notification No. 53-Marine, dated the 2nd March 1897. ment under Act I of 1870.

Notification No. 160-Marine, dated the 24th August 1897.

In exercise of the power conferred by section 2 of the Epidemic Diseases Act, III of 1897, and by the Notification of the Government of India in the Home Department, No. 302, dated the 4th February 1897, the Lieutenant-Governor of Bengal has been pleased to prescribe, as a temporary measure, the following rules for quarantine against plague, and for the medical inspection, isolation, observation and surveillance of persons suffering from, or suspected of being infected with, plague.

These rules shall take effect from the 26th August 1897 in the port of Calcutta, and shall supersede all previous rules.

1. Definitions—

- (1) *Health Officer*.—In these rules "Health Officer" means the Health Officer of the Port of Calcutta, and includes an Assistant Health Officer and any person appointed by name, in virtue of his office, to perform the duties of an Assistant Health Officer.

dangerous to life, or of bubonic plague, exists among her officers, passengers or crew, all of whom have been inspected by me, with the exception of the persons named below, by day at the time of embarkation.

It is further certified that the town and port of

* Or as the case may be. are at present* *free from* plague, epidemic cholera, yellow fever and all

other dangerous epidemic diseases.

The persons named below, who are personally known to me, or whose identity has been proved to my satisfaction, have produced the annexed certificates from medical officers duly appointed in this behalf.

APPENDIX I.

CERTIFICATE.

I do hereby certify that I have examined
a passenger on the ship _____, not more
than twelve hours before the departure of the ship from the port of _____,
and find him in good health, except as noted
in the margin, and free from any symptoms of bubonic plague.

Rank.

Official designation.

Specially appointed under Rule 1 of Plague Notification No. 3,
dated the 17th August 1897, to examine passengers leaving the port of _____
by sea.

APPENDIX II.

Under-clothing, bedding, wearing apparel, mattresses, carpets, etc., which are contaminated or *suspected*, should be disinfected in stoves at *normal pressure, or at a pressure of from one-and-a-half to two degrees, with or without the presence of steam.*

Before a stove is passed as efficient for the purposes of disinfection, it should be subjected to a test, with the aid of a signal thermometer, showing the moment when the temperature in the middle of a mattress rises to at least 100° (centigrade).

To ensure that the disinfection is effective, this temperature must be maintained for from 10 to 15 minutes.

Disinfecting solutions—

(a) Solution of corrosive sublimate, of 1 part in 1,000, with the addition of 10 parts of chloride of soda.

The solution should be coloured with aniline dye or indigo. It should not be placed in metal vessels.

VI. *Inspection by Health Officer.*—The Health Officer, as soon as he has received information of the stoppage of the vessel at Diamond Harbour, or of its arrival at Mateabrooj, shall visit it and ascertain by enquiry from the commander or of the medical officer on board, or from other sources of information, whether any person on board is suffering or has suffered from plague. For this purpose, he may demand a declaration, on oath, from the doctor of the ship, or, failing him, from the captain, that there has been no case of plague on the ship since her departure.

VII. *Rules relating to infected ships—*

- (1) If an infected ship has, under Rule IV, been stopped at Diamond Harbour, she will await the orders of the Health Officer there. If, under Rule V, she has been brought up to Mateabrooj, the Health Officer will direct the commander to take her to the sanitary station at Diamond Harbour or elsewhere as may be appointed by Government, and to await orders there.
- (2) On arrival at the sanitary station, the sick will be immediately disembarked and isolated under the order of the Health Officer.
- (3) The other persons on board shall also be disembarked and, when necessary, kept under observation at the sanitary station for a period varying, in the discretion of the Health Officer, according to the sanitary condition of the ship and the date of the last case. Such period must not exceed ten days from the date of the last case, whether that occurred on boardship or during the period of observation on shore. It is also in the discretion of the Health Officer to allow such persons to proceed to their destination on their giving a written undertaking, in the form annexed as Appendix 1, to submit themselves to surveillance by the medical officer (if any) appointed for the purpose, at their destination, for a period of ten days from the date of the arrival of the ship. The undertaking shall be executed in duplicate, and one copy shall be sent by the Health Officer to the medical officer concerned.

No one arriving on the vessel shall be left on board, except those persons whose presence is necessary for the care of the vessel.

- (4) The soiled linen and personal effects of the crew and passengers, which, in the opinion of the Health Officer, may be considered as infected, shall be disinfected in accordance with the rules contained in Appendix II.

- (2) *Infected ship*.—Any ship with plague on board, or on board which one or more cases have taken place within twelve days before her arrival, will be considered *infected*.
- (3) *Suspected ship*.—Any ship, on board which there has been a case of plague at the time of departure, or during the voyage, but on which no fresh case has occurred for twelve days before her arrival, will be considered *suspected*.
- (4) *Healthy ship*.—Any ship, even though coming from an infected port, which has had no death or case of plague on board, either before departure, during the voyage or on arrival, will be considered *healthy*.
- (5) *Observation*.—The term "observation" means that the persons subjected to it will be segregated in a lazaretto or isolation camp, till they have obtained free *pratique*.
- (6) *Surveillance*.—The term "surveillance" means that the persons subjected to it will not be isolated; they will at once obtain free *pratique*, but, on arriving at their destination, they will be kept under medical supervision.

II. *Hoisting of yellow flag*.—The commander of every vessel, including buggalows or other native craft, (a) arriving from an infected port, or (b) having plague on board, or (c) on board of which one or more cases of plague have taken place within twelve days of her arrival, shall, on arrival at the Sandheads, hoist a yellow flag, and indicate by signal the port from which she has come, and shall keep such flag and signal flying until permitted in writing by the Health Officer to haul it down. The pilot, on going alongside such vessel, shall direct the flag prescribed above to be hoisted, if that has not already been done.

III. *Prohibition of communication*.—The commander shall not, without first having obtained permission as hereinafter provided, allow

* *N.B.*—Pilots are compulsory for all vessels over 100 tons in the port of Calcutta. any communication, except orally, with the shore or any other vessel or boat, excepting only with the boat supplying the pilots* from the Pilot Brig, and in that case communication shall be limited to receiving on board the pilot, his Leadsman, servant and baggage.

IV. *Stoppage at Diamond Harbour*.—If there is any case of sickness on board, and the pilot has reason to believe that it is plague, he shall telegraph to the Health Officer from Saugor, and not proceed beyond Diamond Harbour without the permission of the Health Officer.

V. *Stoppage at Mateabrooj*.—If the pilot has no reason to believe that there is any one suffering from plague on board, he shall bring the vessel up the river to Mateabrooj, and shall anchor it there till the Health Officer has visited it.

VI. *Inspection by Health Officer.*—The Health Officer, as soon as he has received information of the stoppage of the vessel at Diamond Harbour, or of its arrival at Mateabrooj, shall visit it and ascertain by enquiry from the commander or of the medical officer on board, or from other sources of information, whether any person on board is suffering or has suffered from plague. For this purpose, he may demand a declaration, on oath, from the doctor of the ship, or, failing him, from the captain, that there has been no case of plague on the ship since her departure.

VII. *Rules relating to infected ships—*

- (1) If an infected ship has, under Rule IV, been stopped at Diamond Harbour, she will await the orders of the Health Officer there. If, under Rule V, she has been brought up to Mateabrooj, the Health Officer will direct the commander to take her to the sanitary station at Diamond Harbour or elsewhere as may be appointed by Government, and to await orders there.
- (2) On arrival at the sanitary station, the sick will be immediately disembarked and isolated under the order of the Health Officer.
- (3) The other persons on board shall also be disembarked and, when necessary, kept under observation at the sanitary station for a period varying, in the discretion of the Health Officer, according to the sanitary condition of the ship and the date of the last case. Such period must not exceed ten days from the date of the last case, whether that occurred on boardship or during the period of observation on shore. It is also in the discretion of the Health Officer to allow such persons to proceed to their destination on their giving a written undertaking, in the form annexed as Appendix I, to submit themselves to surveillance by the medical officer (if any) appointed for the purpose, at their destination, for a period of ten days from the date of the arrival of the ship. The undertaking shall be executed in duplicate, and one copy shall be sent by the Health Officer to the medical officer concerned.

No one arriving on the vessel shall be left on board, except those persons whose presence is necessary for the care of the vessel.

- (4) The soiled linen and personal effects of the crew and passengers, which, in the opinion of the Health Officer, may be considered as infected, shall be disinfected in accordance with the rules contained in Appendix II.

- (5) The bilge-water will be pumped out after disinfection, and good drinking-water will be substituted for the water stored on board.
- (6) All parts of the ship, which have been inhabited by plague-patients, will be disinfected ; and the other parts of the ship may also be disinfected at the discretion of the Health Officer.
- (7) When these rules have been fully complied with, the Health Officer shall, by an order in writing under his hand, to be delivered to the commander, permit the yellow flag to be hauled down.

VIII. *Rules relating to suspected ships—*

- (1) If a suspected ship has, under Rule IV, been stopped at Diamond Harbour, she will await the orders of the Health Office there. If, under Rule V, she has been brought up to Mateabrooj, the Health Officer will go on board of her there.
- (2) The passengers and crew will be medically inspected by the Health Officer.
- (3) The soiled linen and personal effects of the passengers and crew, which, in the opinion of the Health Officer, may be considered as infected, will be disinfected in accordance with the rules contained in Appendix II.
- (4) The bilge-water will be pumped out after disinfection, and good drinking-water will be substituted for the water stored on board.
- (5) All parts of the ship, which have been inhabited by plague-patients, will be disinfected ; and the other parts of the ship may also be disinfected at the discretion of the Health Officer.
- (6) Passengers who are suspected by the Health Officer to be infected with plague may be detained under observation in an isolation hospital appointed for the purpose for ten days from arrival of the ship, or, if plague occurs among them while under observation, from the date of the last case.
- (7) The crew will not be allowed to land, except on duty, for ten days from the arrival of the ship.
- (8) Passengers who are passed on medical inspection as healthy will be allowed to proceed to their destination on their giving a written undertaking, in the form annexed, to submit themselves to surveillance by the medical officer

(if any) appointed for the purpose, at their destination, for a period of ten days from the date of the arrival of the ship. The undertaking shall be executed in duplicate, and one copy shall be sent by the Health Officer to the medical officer concerned.

- (9) When these rules have been fully complied with, the Health Officer shall, by an order in writing under his hand, to be delivered to the commander, permit the yellow flag to be hauled down.

IX. Rules relating to healthy ships—

- (1) A healthy ship shall be given free *pratique* at once, whatever may be the nature of her bill of health.
- (2) Such a ship may, at the discretion of the Health Officer, be subjected to the measures prescribed in Rules VIII (2), VIII (3) and VIII (4), but the ship itself may not be disinfected as in Rule VIII (5), except with the consent of the commander or agent.
- (3) Passengers who, on medical inspection, are suspected by the Health Officer to be infected with plague may be detained under observation in an isolation hospital appointed for the purpose for ten days from the date on which the ship left an infected port, or, if plague occurs among them while under observation, from the date of the last case.
- (4) The crew will not be allowed to land, except on duty, ten days from the date on which the ship left an infected port.
- (5) The crew and passengers may, at the discretion of the Health Officer, be subjected to surveillance in the manner described in Rule VIII (8) for a period of ten days from the date on which the ship left an infected port.
- (6) When these rules have been fully complied with, the Health Officer shall, by an order in writing under his hand, to be delivered to the commander, permit the yellow flag to be hauled down.
- (7) None of the above measures will be considered necessary when the ship has been given free *pratique* at Colombo or other intermediate port.

X. Ships carrying a doctor or a stove.—In exercising the discretion vested in him by the rules under heads VI, VII and IX above, the Health Officer should take into consideration the fact of there being a doctor, or a disinfecting apparatus (stove), on board the ship in question.

XI. Rules relating to crowded and insanitary ships.—Crowded ships, ships carrying emigrants or return pilgrims and ships which appear to be in an insanitary state may, at the discretion of the Health Officer, be treated as suspected ships under head VIII.

XII. Right of ship to put back to sea.—Any ships objecting to submit to the obligations imposed by these rules will be free to put back to sea. Such objection must be notified on or before arriving at Diamond Harbour.

XIII. Rules applying to ships claiming right to put back to sea.—If ships claiming the right to put back to sea desire to disembark passengers or land goods, they must submit to the rules relating to suspected ships.

XIV. Provisions and stores.—It will be the duty of the Port Officer to facilitate the conveyance to all vessels in quarantine of such supplies of provisions, stores and other articles as may be required by those on board. Such supplies will be placed on the boats of the vessels in quarantine to be subsequently removed by members of their crews.

APPENDIX I.

I (*name*) of (*place*) do hereby declare that it is my intention at once to proceed to (*place*), and I agree to submit myself to medical supervision by (*name or office of medical officer appointed for the purpose*) for a period of ten days from (*date from which period is to be reckoned*).

Signed

In the presence of

Health Officer.

APPENDIX II.

Instructions for disinfection.

1. Personal effects, rags, infected bandages, papers and other articles, without value, should be destroyed by fire.

2. Under-clothing, bedding, wearing apparel, mattresses, carpets, etc., which are contaminated or *suspected*, should be disinfected in stoves at *normal pressure*, or at a pressure of *from one-and-a-half to two degrees*, with or without the presence of steam.

Before a stove is passed as efficient for the purposes of disinfection, it should be subjected to a test, with the aid of a signal thermometer, showing the moment when the temperature in the middle of a mattress rises to, at least, 100° (centigrade).

To ensure that the disinfection is effective, this temperature must be maintained for from ten to fifteen minutes.

3. Disinfecting solutions—

(a) Solution of corrosive sublimate, of 1 part in 1,000, with the addition of 10 parts of chloride of soda.

The solution should be coloured with aniline dye or indigo. It should not be placed in metal vessels.

(b) A 5 per cent solution of pure crystallized carbolic acid, or 5 per cent. of crude commercial carbolic acid, in a warm soft soap.

(c) Fresh slaked-lime.*

4. Special instructions to be observed in the employment of disinfecting solutions.

The linen, clothing and articles, soiled by the excreta of patients, should be soaked in the solution of corrosive sublimate. The solution of pure carbolic acid, and the solution of soap and carbolic acid, are equally suited to the purpose. The articles should remain in the solution for at least six hours.

Articles which cannot be subjected to the temperature of the stove (100° centigrade) without injury, such as leather goods, wooden articles stuck together with glue, felt, velvet, silk, etc., should be washed with the solution of corrosive sublimate; coins can be disinfected with the solution of soap and carbolic acid.

Persons engaged in nursing the sick should wash their hands and faces with the solution of corrosive sublimate, or with one of the carbolic solutions.

The carbolic solutions will be useful, more particularly for disinfecting articles, such as metals, instruments, etc., which can neither be subjected to a temperature of 100° centigrade, nor placed in contact with corrosive sublimate.

Slaked-lime is particularly recommended for disinfecting excreta. Expecterated matter should be burnt.

5. Disinfection of ships with plague-patients on board.

The cabin or cabins, and all parts of the ship occupied by the sick or suspected, should be cleared out, and all articles in them should be treated as described above.

* To get very strong slaked-lime, take lime of good quality, slake it, by moistening it gradually with half its weight of water. When the operation is completed, put the powder in a carefully-corked receptacle, and place it in a dry spot. As each kilogramme of lime absorbs 570 grammes of water in order to become slack, it acquires a volume of 2 litres 250, and it is sufficient to dilute it with double its volume of water, say 4 kilogrammes 400 grammes, to obtain a white-wash, which will be of about 25 per cent. strength of lime.

The partitions should be disinfected with the solution of corrosive sublimate, with an addition of 10 per cent. of alcohol. The washing should commence from the top, horizontally, and be continued downwards, so that the whole surface of the partition becomes covered, with a coating of minute drops.

The boarding should be washed with the same solution.

Two hours after, the walls and flooring should be washed over with plenty of water.

6. Disinfection of the hold of an infected ship.

To disinfect the hold, sulphate of iron, in quantity sufficient to neutralize the sulphurated hydrogen, should first be thrown in, the bilge-water should be pumped out, and the hold washed with seawater. Solution of corrosive sublimate should then be thrown in.

The bilge-water should not be pumped out while the ship is in port.

No. 161-Marine, dated the 27th August 1897.

NOTIFICATION—By the Government of Bengal, Marine Department.

With the previous sanction of the Governor General in Council, the Lieutenant-Governor is pleased to declare that the rules for quarantine against plague, promulgated in the Notifications issued by this Department, Nos. 126-Marine and 53-Marine, dated, respectively, the 20th October 1896 and 2nd March 1897, are cancelled, with effect from the 26th August 1887, the date on which the revised rules for quarantine, issued under the provisions of Act III of 1897, and published in this Department Notification No. 160-Marine, dated the 24th August 1897, come into operation.

MADRAS.

No. 602 (Marine), dated Ootacamund, the 6th July 1897.

No. 96.

From—The Secretary to the Government of Madras, Public Works Department,

To—The Secretary to the Government of India, Home Department.

With reference to your letter No. 1624, dated 1st June 1897, I am directed to say that a copy of the quarantine rules for Madras, revised in accordance with the remarks contained therein, will follow as soon as practicable. Meanwhile I am to ask for a decision on the following questions:—

(a) whether in the case of a vessel from, say, Calcutta, calling at Madras on her way home, all the crew is to be brought on shore and inspected there; or

(b) whether it will suffice to inspect the persons who join at Madras; and

(c) whether the procedure is to be the same at other ports of call;

(d) if a vessel starts from, say, Madras, must the *crew* be brought on shore for inspection. This is probably not intended, as it would expose them to infection.

2. Meanwhile, with reference to the penultimate sentence of paragraph 5 of your letter, it has been directed that Madras and all other ports in this Presidency from which vessels sailed direct to foreign countries or Burma shall be regarded as infected ports for the purpose of outward inspection.

3. The rules for the outward bound vessels cannot be revised till this Government is in possession of the Bombay rules, on which the Madras rules must, in accordance with the instructions contained in clause (b), paragraph 5 of your letter, be based. Application has been made to the Bombay Government for a copy of its rules.

No. 97.

No. 1832 (Sanitary), dated Simla, the 17th July 1897.

From—J. P. HEWETT, Esq., C.I.E., Secretary to the Government of India, Home Department,

To—The Secretary to the Government of Madras, Public Works Department.

I am directed to reply to your No. 602 (Marine), dated the 6th instant, on the subject of modification, in accordance with the Venice Sanitary Convention of 1897, of the rules issued by the Government of Madras for the quarantine of vessels arriving from infected ports, and for the examination of persons sailing on vessels departing from ports in the Madras Presidency.

2. The decision of the Government of India is asked for on certain questions set forth in the first paragraph of your letter. With regard to questions (a), (b) and (c), I am to say that in the case of a vessel starting from, say, Calcutta, and calling at Madras or any other port in the Madras Presidency on her way home, neither the crew nor the passengers already on board need be brought on shore and inspected there. It will suffice to inspect the persons who join the vessel at Madras or other port of call.

3. With regard to question (d), I am to say that the Government of India consider that in the case of vessels sailing to foreign countries from ports in the Madras Presidency, the crew should be brought on shore for inspection. Chapter I, section ii, Article 1 of the Convention requires the medical inspection on shore of every person sailing on the ship. This includes the examination on shore of the crew. The precaution would seem to be necessary since, in the case of a vessel sailing from an infected port, it is probable that some persons amongst the crew might have recently mixed with the infected population of the place, and the crew should therefore be examined in order to

ascertain that none of them are suffering from or infected with plague. The ports of the Madras Presidency not being infected the matter is of less importance in that Presidency. But it is possible that some members of the crew might have come from an infected district to join the ship, and, as is stated in paragraph 5 of my letter No. 1624, dated the 1st June, the Government of India consider it desirable that the modified rules to be issued by the Government of Madras should conform, as far as possible, to the terms of the Convention. The Madras ports not being infected there can be no danger in landing the crew. In the case of an infected port it would be necessary to adopt due precautions.

4. In conclusion, I am to say that the Government of India will be glad to receive copies of the modified rules as soon as they are issued.

Extract from the Proceedings of the Government of Madras, Marine Department,
No. 493, dated the 28th May 1897.

Read the following paper :—

No. 1862, dated Vriddhachalam, the 19th May 1897.

From—A. E. CASTLESTUART STUART, Esq., Collector of South Arcot, No. 98.

To—The Secretary to the Government of Madras, Marine Department.

I have the honour to request the favour of an authoritative ruling by Government on the following point :—

Is a vessel calling at the port of Cuddalore and bound thence for Bombay *via* Negapatam and Colombo liable to be inspected by the Port Health Officer for the purposes of Act III of 1897 (the Epidemic Diseases Act) ?

2. Under paragraph 2 of the Notification ordered to be published by Government in G. O. No. 323 (Marine), dated the 1st April 1897, "all other officers appointed Health Officers under the said Act or otherwise will exercise their powers in the case of all vessels leaving the ports for which they have been appointed *for whatever destination such vessels may be declared.*"

3. In obedience to the terms of this Notification which are printed in italics, the Health Officer at the port of Cuddalore, inspected the British India Steam Navigation Company's S.S. *Chanda* on 5th May 1897 before she left the port bound for Bombay *via* Negapatam and Colombo. The commander took exception to this inspection, urging that as his vessel was not bound for "any port out of India" from Cuddalore, but directly for Negapatam—another port in India—no such inspection was necessary.

4. The Notification ordered to be published by Government in G. O. No. 344 (Marine), dated 8th April 1897, apparently lends support to the commander's objection, though it would seem to be

contradictory to the Notification referred to in paragraph 2, *supra*. By the later Notification—the former being also in force—His Excellency the Governor in Council was pleased “to declare that all vessels and persons leaving” certain ports in the Madras Presidency, of which Cuddalore is one, “*for ports out of India*” shall be subjected to the regulations” therein formulated. Paragraph 2 of these regulations runs: “No vessel shall leave any such port *for any port out of India* until she has been inspected by the Health Officer of the Port,” etc. The words which are printed in italics might be taken to mean that a vessel leaving Cuddalore directly for Negapatam—which is *not* “a port out of India”—need not be inspected by the Health Officer whereas the former Notification makes it clear that Health Officers are to exercise their powers “in the case of all vessels leaving the ports for which they have been appointed *for whatever destination such vessels may be declared*.”

5. I venture to submit that, during the continuance of the plague epidemic, it is desirable that all vessels should be inspected at each of the ports specified in the later Notification before leaving such ports for whatever declared destination.

Order thereon by the Government of Madras.

His Excellency the Governor in Council observes that the rules printed with G. O. No. 344 (Marine), dated 9th April 1897, render inspection compulsory in the case of all vessels leaving for any port “out of India,” and paragraph 2 of the Notification printed with G. O. No. 323 (Marine), dated 1st April 1897, directs Health Officers to exercise their powers of inspection on all outward vessels for “whatever destination such vessels may be declared.” There is nothing inconsistent in the rules as they stand, and as one rule is not declared to have superseded the other, both are in force, and should be acted on. The intention is to extend the power of inspection prescribed in the rules printed with G. O. No. 344 (Marine), dated 8th April 1897. The order of dates of the two Notifications was accidental.

No. 99. Extract from the Proceedings of the Government of Madras, Marine Department, No. 790-Marine, dated 11th September 1897.

Read again—

General Order No. 601, Marine, dated 6th July 1897.

Ordered that the following notification be published in the Fort St. George and all Maritime District Gazettes:—

NOTIFICATION.—In exercise of the powers conferred by the Act III of 1897, the Epidemic Diseases Act, His Excellency the Governor in Council is pleased to declare that all vessels and persons, leaving the

undermentioned ports of the Madras Presidency for ports out of India direct, shall be subjected, as a temporary measure, to the regulations hereinafter contained, and that the duties of health officers under these regulations shall be discharged by the medical officers named below, or by such other medical officer as may from time to time be appointed for the purpose by the Government or "Sanitary authority" as defined in the regulations published in the *Port St. George Gazette* of the 31st August 1897, the definitions contained in which are applicable to the regulations herein contained. These regulations will supersede those now in force for the inspection of outward bound vessels:—

Ports.	Health Officers.
Gopalpur	... Civil Apothecary.
Calingapatam	... Ditto.
Baruva	... Hospital Assistant, Sompeta.
Bimlipatam	... Civil Apothecary.
Vizagapatam	... District Medical and Sanitary Officer, or, in his absence, the Assistant Surgeon of the District.
Cocanada	... Civil Surgeon, or, in his absence, the Assistant Surgeon in charge.
Masulipatam	... District Medical and Sanitary Officer, or, in his absence, the Assistant Surgeon of the District.
Madras	... Port and Marine Surgeon, and Officer in subordinate charge of Port and Marine Dispensary.
Cuddalore	... District Medical and Sanitary Officer, or, in his absence, the Assistant Surgeon.
Negapatam	... Civil Surgeon.
Tranquebar	... Apothecary.
Tuticorin	...
Pamban	...
Kilakarai	... Assistant.
Calicut	... and
Cochin	...
Tellicherry	...

Ports.	Health Officers.
Cannanore	... Civil Surgeon, or, in his absence, the Medical Officer in charge of the Central Jail.
Mangalore	... District Medical and Sanitary Officer, or, in his absence, the Assistant Surgeon of the District.

Regulations.

1. No person shall be permitted to embark on board a vessel with- in any such port bound direct for any port out of India, who has, with- in the preceding ten days, resided in a part of India believed by the Health Officer of the port to be infected with plague. Any port may be declared "infected" by the Government or by the "Sanitary authority."

2. No deck passenger, who appears to the Port Officer to belong to the labouring classes, shall be permitted to embark on board a vessel at the port of Tuticorin bound for a port in Ceylon, until he or she has satisfied the Medical Officer of the Government of that Colony stationed at Tuticorin that he or she has not, within the preceding ten days, resided in a part of India infected by the plague, and that he or she is free from infection with the plague, and until the said Colonial Officer has so certified in respect of such passenger. The Health Officer of the port of Tuticorin shall not deliver a bill of health in respect of any such vessel, if there be on board any such passenger in respect of whom the Colonial Officer has not certified as aforesaid.

3. No vessel shall leave any such port for any port out of India direct, until she has been inspected by the Health Officer of the port, and the master or person in charge of such vessel has obtained from such officer a bill of health or certificate in the form given below that the officers and crew of, and also the passenger (if any) by, such vessel are free from the bubonic plague:—

Bill of Health.

This is to certify that the ship (or steamer) sailing under
the flag and under the command of as master of
tons bound for with a crew of persons* and

* Including officers and able-bodied passengers and laden with a cargo
seamen, of is at the time of leaving
this port in a satisfactory sanitary condition, and that no case of bubonic

undermentioned ports of the Madras Presidency for ports out of India direct, shall be subjected, as a temporary measure, to the regulations hereinafter contained, and that the duties of health officers under these regulations shall be discharged by the medical officers named below, or by such other medical officer as may from time to time be appointed for the purpose by the Government or "Sanitary authority" as defined in the regulations published in the *Port St. George Gazette* of the 31st August 1897, the definitions contained in which are applicable to the regulations herein contained. These regulations will supersede those now in force for the inspection of outward bound vessels :—

Ports.	Health Officers.
Gopalpur	... Civil Apothecary.
Calingapatam	... Ditto.
Baruva	... Hospital Assistant, Sompeta.
Bimlipatam	... Civil Apothecary.
Vizagapatam	... District Medical and Sanitary Officer, or, in his absence, the Assistant Surgeon of the District.
Cocanada	... Civil Surgeon, or, in his absence, the Assistant Surgeon in charge.
Masulipatam	... District Medical and Sanitary Officer, or, in his absence, the Assistant Surgeon of the District.
Madras	... Port and Marine Surgeon, and Officer in subordinate charge of the Port and Marine Dispensary.
Cuddalore	... District Medical and Sanitary Officer, or, in his absence, the Assistant Surgeon of the district.
Negapatam	... Civil Surgeon.
Tranquebar	... Civil Apothecary.
Tuticorin	... Ditto.
Pamban	... Ditto.
Kilakarai	... Hospital Assistant.
Calicut	... District Medical and Sanitary Officer, or, in his absence, the Assistant Surgeon of the District.
Cochin	... Civil Surgeon, or, in his absence, the Assistant Surgeon in charge.
Tellicherry	... Civil Surgeon, or, in his absence, the Assistant Surgeon in charge.

5. Vessels not leaving port before 6 A.M. of the day following the medical inspection may not leave without re-inspection and the grant a fresh bill of health.

6. Should the Health Officer of the port be of opinion that any person on board of any vessel so inspected is suffering from the malarial plague or from any illness which he suspects may prove to be malarial, he shall refuse to give a bill of health as aforesaid unless and until such person, together with his or her attendants and relatives and their baggage and personal effects, have been removed from the vessel and such parts of the vessel as have been frequented by such persons shall have been disinfected to the satisfaction of the Health Officer. Such removal and disinfection shall be noted on the bill of health. The baggage and effects of such persons as are removed from or prevented from sailing in any vessel under this rule shall be disinfected on shore in such manner as the Port Health Officer directs before such baggage and personal effects are permitted on board any vessel.

7. All persons so removed shall be detained in a plague hospital or place of observation appointed by the Sanitary authority, as the case may be; and shall not leave such hospital or place until the Chief Medical Officer present at the spot shall have certified that they are free from the infection of the plague.

8. After the master or person in charge of the vessel has obtained a bill of health under the provisions

* *Note.*—Mail bags are included in "cargo" under this Regulation.

of these regulations, no person or cargo* or goods of any kind shall be

embarked or disembarked before the vessel leaves the port unless such vessel is again inspected by the Port Health Officer and another bill of health obtained from such officer by the master or person in charge of such vessel. If the necessity of a fresh inspection by the Port Health Officer under this regulation arises from any default or act of the master or agents of the vessel, of which the Port Officer shall be the sole judge, such fresh inspection shall not take place until after the payment to the Port Officer by the master or agents of such vessel of such fee for such inspection, not being less than five nor more than fifty rupees, as the Port Officer in his sole discretion may order.

9. No port clearance shall be delivered to any vessel bound from any such port to any port out of India unless and until the master or person in charge thereof shall produce a bill of health obtained as aforesaid; and it shall be the duty of the Customs Officer to refuse delivery of the port clearance without the production of such bill of health.

undermentioned ports of the Madras Presidency for ports out of India direct, shall be subjected, as a temporary measure, to the regulations hereinafter contained, and that the duties of health officers under these regulations shall be discharged by the medical officers named below, or by such other medical officer as may from time to time be appointed for the purpose by the Government or "Sanitary authority" as defined in the regulations published in the *Fort St. George Gazette* of the 31st August 1897, the definitions contained in which are applicable to the regulations herein contained. These regulations will supersede those now in force for the inspection of outward bound vessels:—

Ports.	Health Officers.
Gopalpur	... Civil Apothecary.
Calingapatam	... Ditto.
Baruva	... Hospital Assistant, Sompeta.
Bimlipatam	... Civil Apothecary.
Vizagapatam	... District Medical and Sanitary Officer, or, in his absence, the Assistant Surgeon of the District.
Cocanada	... Civil Surgeon, or, in his absence, the Assistant Surgeon in charge.
Masulipatam	... District Medical and Sanitary Officer, or, in his absence, the Assistant Surgeon of the District.
Madras	... Port and Marine Surgeon, and Officer in subordinate charge of the Port and Marine Dispensary.
Cuddalore	... District Medical and Sanitary Officer, or, in his absence, the Assistant Surgeon of the district.
Negapatam	... Civil Surgeon.
Tranquebar	... Civil Apothecary.
Tuticorin	... Ditto.
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Kilakarai	... Hospital Assistant.
Calicut	... District Medical and Sanitary Officer, or, in his absence, the Assistant Surgeon of the District.
Cochin	... Civil Surgeon, or, in his absence, the Assistant Surgeon in charge.
Tellicherry	... Civil Surgeon, or, in his absence, the Assistant Surgeon in charge.

5. Vessels not leaving port before 6 A.M. of the day following the medical inspection may not leave without re-inspection and the grant of a fresh bill of health.

6. Should the Health Officer of the port be of opinion that any person on board of any vessel so inspected is suffering from the bubonic plague or from any illness which he suspects may prove to be plague, he shall refuse to give a bill of health as aforesaid unless and until such person, together with his or her attendants and relatives and their baggage and personal effects, have been removed from the vessel and such parts of the vessel as have been frequented by such persons shall have been disinfected to the satisfaction of the Health Officer. Such removal and disinfection shall be noted on the bill of health. The baggage and effects of such persons as are removed from or prevented from sailing in any vessel under this rule shall be disinfected on shore in such manner as the Port Health Officer directs before such baggage and personal effects are permitted on board any vessel.

7. All persons so removed shall be detained in a plague hospital or place of observation appointed by the Sanitary authority, as the case may be; and shall not leave such hospital or place until the Chief Medical Officer present at the spot shall have certified that they are free from the infection of the plague.

8. After the master or person in charge of the vessel has obtained a bill of health under the provisions of these regulations, no person or cargo* or goods of any kind shall be embarked or disembarked before the vessel leaves the port unless such vessel is again inspected by the Port Health Officer and another bill of health obtained from such officer by the master or person in charge of such vessel. If the necessity of a fresh inspection by the Port Health Officer under this regulation arises from any default or act of the master or agents of the vessel, of which the Port Officer shall be the sole judge, such fresh inspection shall not take place until after the payment to the Port Officer by the master or agents of such vessel of such fee for such inspection, not being less than five nor more than fifty rupees, as the Port Officer in his sole discretion may order.

9. No port clearance shall be delivered to any vessel bound from any such port to any port out of India unless and until the master or person in charge thereof shall produce a bill of health obtained as aforesaid; and it shall be the duty of the Customs Officer to refuse delivery of the port clearance without the production of such bill of health.

* Note.—Mail bags are included in "cargo" under this Regulation.

plague exists among her officers, passengers or crew, all of whom have been inspected by me.

It is further certified that the town and port of _____ are

* Or as the case may be. _____ at present *free* from* plague :

Provided that—

- (i) a vessel which has obtained a clean bill of health at any port of the Madras Presidency shall not be liable to further inspection during the same voyage if there has

been no case of plague on board meanwhile, and the vessel has not subsequently touched at any port which has been declared infected, or taken up passengers at other than inspection† ports; and

† Proviso (1) does not apply to vessels sailing for Burma which must not be allowed to leave the port of Madras without medical inspection as prescribed in these regulations.

- (ii) all vessels belonging to the Ceylon Government which may leave ports in the Madras Presidency with emigrants for Ceylon shall be exempted from medical inspection.

4. The medical inspection of passengers and other persons prescribed in these regulations must be of each individual by day, on shore, at the time of embarkation : Provided that—

- ‡(i) in the case of vessels anchored in the Madras roadstead (*i.e.*,

‡ In the case of the officers and crew of a vessel being brought on shore for inspection they may come in batches. _____ outside the enclosed harbour) and at out-ports, the inspection of officers

and crew may be conducted on board ; and

- (ii) in the case of a vessel starting from Calcutta and calling at Madras or any other port in the Madras Presidency on her way to Europe, neither the crew nor the passengers already on board need be brought on shore and inspected there. The form of bill of health under this proviso and under (i) to Regulation 3 will be as follows :—

Bill of Health.

This is to certify that no case of bubonic plague exists among any of the passengers or other persons embarked at the port of _____ on board the ship (or steamer) _____ under the command of _____ as master bound for _____

It is further certified that the town and port of _____ are at present *free§ from* plague ;

§ Or as the case may be.

5. Vessels not leaving port before 6 A.M. of the day following the medical inspection may not leave without re-inspection and the grant of a fresh bill of health.

6. Should the Health Officer of the port be of opinion that any person on board of any vessel so inspected is suffering from the bubonic plague or from any illness which he suspects may prove to be plague, he shall refuse to give a bill of health as aforesaid unless and until such person, together with his or her attendants and relatives and their baggage and personal effects, have been removed from the vessel and such parts of the vessel as have been frequented by such persons shall have been disinfected to the satisfaction of the Health Officer. Such removal and disinfection shall be noted on the bill of health. The baggage and effects of such persons as are removed from or prevented from sailing in any vessel under this rule shall be disinfected on shore in such manner as the Port Health Officer directs before such baggage and personal effects are permitted on board any vessel.

7. All persons so removed shall be detained in a plague hospital or place of observation appointed by the Sanitary authority, as the case may be; and shall not leave such hospital or place until the Chief Medical Officer present at the spot shall have certified that they are free from the infection of the plague.

8. After the master or person in charge of the vessel has obtained a bill of health under the provisions of these regulations, no person or cargo* or goods of any kind shall be embarked or disembarked before the vessel leaves the port unless such vessel is again inspected by the Port Health Officer and another bill of health obtained from such officer by the master or person in charge of such vessel. If the necessity of a fresh inspection by the Port Health Officer under this regulation arises from any default or act of the master or agents of the vessel, of which the Port Officer shall be the sole judge, such fresh inspection shall not take place until after the payment to the Port Officer by the master or agents of such vessel of such fee for such inspection, not being less than five nor more than fifty rupees, as the Port Officer in his sole discretion may order.

9. No port clearance shall be delivered to any vessel bound from any such port to any port out of India unless and until the master or person in charge thereof shall produce a bill of health obtained as aforesaid; and it shall be the duty of the Customs Officer to refuse delivery of the port clearance without the production of such bill of health.

* Note.—Mail bags are included in "cargo" under this Regulation.

plague exists among her officers, passengers or crew, all of whom have been inspected by me.

It is further certified that the town and port of _____ are

* Or as the case may be. _____ at present *free** from plague:

Provided that—

(i) a vessel which has obtained a clean bill of health at any port of the Madras Presidency shall not be liable to further inspection during the same voyage if there has

been no case of plague on board meanwhile, and the vessel has not subsequently touched at any port which has been

declared infected, or taken up passengers at other than inspection† ports; and

(ii) all vessels belonging to the Ceylon Government which may leave ports in the Madras Presidency with emigrants for Ceylon shall be exempted from medical inspection.

4. The medical inspection of passengers and other persons prescribed in these regulations must be of each individual by day, on shore, at the time of embarkation: Provided that—

‡(i) in the case of vessels anchored in the Madras roadstead (*i.e.*,

‡ In the case of the officers and crew of a vessel being brought on shore for inspection they may come in batches. _____ outside the enclosed harbour) and at out-ports, the inspection of officers

and crew may be conducted on board; and

(ii) in the case of a vessel starting from Calcutta and calling at Madras or any other port in the Madras Presidency on her way to Europe, neither the crew nor the passengers already on board need be brought on shore and inspected there. The form of bill of health under this proviso and under (i) to Regulation 3 will be as follows:—

Bill of Health.

This is to certify that no case of bubonic plague exists among any of the passengers or other persons embarked at the port of _____ under the command of _____ as master bound for _____

§ Or as the case may be.

It is further certified that the town and port of _____ are at present *free*§ from _____

5. Vessels not leaving port before 6 A.M. of the day following the medical inspection may not leave without re-inspection and the grant of a fresh bill of health.

6. Should the Health Officer of the port be of opinion that any person on board of any vessel so inspected is suffering from the bubonic plague or from any illness which he suspects may prove to be plague, he shall refuse to give a bill of health as aforesaid unless and until such person, together with his or her attendants and relatives and their baggage and personal effects, have been removed from the vessel and such parts of the vessel as have been frequented by such persons shall have been disinfected to the satisfaction of the Health Officer. Such removal and disinfection shall be noted on the bill of health. The baggage and effects of such persons as are removed from or prevented from sailing in any vessel under this rule shall be disinfected on shore in such manner as the Port Health Officer directs before such baggage and personal effects are permitted on board any vessel.

"including master, mates, engineers, apprentices and private servants when the latter are not mentioned in the ship's articles" be substituted, in order to include every person employed on board as distinguished from passengers. The expression "able-bodied seamen" seems out of place, for the expression "seaman" according to section 742 of the Merchant Shipping Act of 1894 includes "every person (except masters, pilots and apprentices duly indentured and registered) employed or engaged in any capacity on board any ship."

No. 842 (Marine), dated the 27th September 1897.

Order thereon by the Government of Madras, Marine Department.

The amendment of the form of bill of health proposed by the Presidency Port Officer is approved and will be adopted. The following notification will be issued accordingly:—

NOTIFICATION.

The form of bill of health prescribed in rule 3 of the regulations published as Notification No. 167, dated 11th September 1897, in the *Fort St. George Gazette* of the 14th September 1897, Part I, page 1167, will be amended as follows:—

For the words "including officers and able-bodied seamen," read "including master, mates, engineers, apprentices and private servants when the latter are not mentioned in the ship's articles."

Extract from the Proceedings of the Government of Madras, Marine Department, No. 102.
No. 745, dated the 23rd August 1897.

Read again—

General Order No. 601 (Marine), dated 6th July 1897.

Ordered that the following Notification be published in the *Fort St. George* and all Maritime District Gazettes:—

NOTIFICATION.—In exercise of the powers delegated to him by the Governor General in Council under section 2, sub-section (3) of the Epidemic Diseases Act, 1897, His Excellency the Governor in Council is pleased to prescribe, under the said Epidemic Diseases Act, the following temporary regulations to be observed in all ports of the Madras Presidency. These regulations will supersede those now in force and which are published on pages 601—604, Part I of the *Fort St. George Gazette* of the 11th May 1897.

1. In these regulations—

(1) "Vessel" includes anything made for the conveyance by water of human beings or of property.

- (2) "Port Officer" includes any person acting under the authority of Government in charge of port discipline.
 - (3) "Master" when used in relation to any vessel means any person (except a pilot or harbour master) having for the time being the charge or control of the vessel.
 - (4) "Sanitary authority" means the Collector of the District, and the Municipal Council or Local Board, the area under whose jurisdiction includes or abuts on any part of a customs port. Where a customs port is included within or abuts on the jurisdiction of more than one of the authorities above mentioned, the Governor in Council shall appoint which of them shall be the sanitary authority for the purpose of these regulations, or he may distribute among them, in such manner as he may deem fit, the duties imposed by these regulations. The jurisdiction of every sanitary authority shall, for the purposes of these regulations, extend to seaward for a distance of three miles beyond low water mark on all parts of the coast line bounding the area ordinarily under its jurisdiction.
 - (5) "Port Health Officer" includes any duly qualified medical practitioner appointed by a sanitary authority or by the Local Government to act in the execution of these regulations.
 - (6) "Observation" means segregation either on board a vessel, or in an isolation camp or place.
 - (7) "Surveillance" means that the person subjected to it will not be isolated; they will at once obtain free pratique, but will be kept under medical supervision.
2. (1) "Infected" used with reference to a vessel denotes any vessel with plague on board, or on board which one or more cases have taken place within twelve days.
- (2) "Suspected" used with reference to a vessel denotes any vessel on board which there has been a case of plague at the time of departure, or during the voyage, but on which no fresh case has occurred for twelve days.
- (3) "Healthy" used with reference to a vessel denotes any vessel which has come from, or which during the voyage has touched at, an infected port, but which has had no death, or case of plague on board, either before departure, during the voyage or on arrival.
3. The master of every "infected," "suspected" or "healthy" vessel shall, when within three miles of the coast of any part of the

(c) "healthy" from an infected port (as the case may be).

(Signed)

Port Health Officer.

13. The master of any vessel certified by the Port Health Officer to be "*infected*" or "*suspected*" shall thereupon moor or anchor her if he has not already done so at the place fixed for that purpose under Regulation 9 where she shall remain until the requirements of these regulations have been duly fulfilled, and from which she shall not depart without the written or, where communication with the vessel is impracticable owing to stress of weather, the signalled permission of the Port Health Officer.

14. No person shall leave any such vessel until the examination hereinafter prescribed shall have been made.

15. (1) The Port Health Officer shall, as soon as possible, after a vessel has been certified as *infected*, *suspected* or *healthy*, examine every person on board the same.

(2) If any person on board any such vessel is found to be suffering from plague, or from any illness which the Port Health Officer suspects may prove to be plague, the Port Health Officer shall certify accordingly. Every person who shall be so certified by him shall, if possible, be immediately disembarked, and shall be detained for treatment in a suitable hospital or ward or isolation camp or other place.

(3) If the vessel is certified to be *infected*, all persons on board shall be kept under *observation* or *surveillance*, as the Port Health Officer may determine, and shall, if possible, be disembarked for the purpose.

(4) All persons kept under *observation*, whether on shore or on board the vessel, shall be detained for such period as the Port Health Officer shall in his absolute discretion prescribe with regard to the sanitary condition of the vessel and the date of the last case of plague which has occurred among the crew or passengers, but which shall not exceed ten days from the date of the occurrence of the last case of plague which has occurred on board, or which may subsequently occur among the persons detained in such camp or place as the Sanitary authority shall have appointed for the purpose of their detention or on board the vessel, after which they shall, if certified by the Chief Medical Officer on the spot to be free from the infection of plague, be permitted to proceed to their destination.

(5) If the vessel is certified to be *suspected* or *healthy*, all persons on board who may disembark shall be subjected to *surveillance* either at the port or their destination as the Sanitary authority may direct, in the case of a *suspected* vessel for a period of ten days

from the date of the arrival of the vessel in port, and in the case of a *healthy* vessel for the period necessary to complete a term of ten days from the date of the vessel's departure from the infected port last visited. In either case the Port Health Officer may place under *observation*, instead of *surveillance*, for a term not exceeding ten days from such vessel's arrival at the port any person whom he may consider to be in any way likely to carry the infection of the plague.

16. A clean bill of health shall not be granted to an *infected* vessel until all the requirements of these regulations have been complied with, nor until ten days have elapsed from the date of the last case of plague which has occurred on board; nor, if the person attacked has been treated on board, until ten days from the death or recovery of such person.

17. In the case of a vessel certified to be *suspected* or *healthy*, a clean bill of health shall be given, provided the requirements of these regulations have been complied with and if ten days have elapsed since the vessel's departure from the infected port last visited. If ten days have not elapsed, the vessel may be detained in quarantine at the discretion of the Port Health Officer for the time necessary to complete the period of ten days, the crew and passengers being placed during such period under *surveillance*. Free *pratique* granted at Colombo or at an intermediate Indian or Burmese port shall be recognized.

18. No port clearance shall be granted to any vessel which has been subjected to these rules unless with the written concurrence of the Port Health Officer.

19. No person detained for treatment or placed under *observation* shall leave the camp or place or vessel in which he is detained under treatment or *observation*, until the Chief Medical Officer present at the spot shall have certified that such person is free from the infection of the plague.

20. Every person placed under *surveillance* shall present himself for examination by the Medical Officer appointed for this purpose, by the Sanitary authority, at such times and places as such medical officer may direct.

21. If any person suffering from plague or from any illness which the Port Health Officer suspects may prove to be plague cannot be disembarked under Regulation 15, he may be detained on board the vessel, which shall remain subject, for the purpose of this regulation, to the control of the Port Health Officer. Such person shall not be removed from or leave the vessel, except with the consent, in writing, of the Port Health Officer; and, if the illness from which such person

suffered is, or proves to be, plague, the vessel shall be treated as an *infected* vessel.

22. Any person detained under *observation* or placed under *surveillance* who is certified by the Port Health Officer or by the medical officer appointed under Regulation 19 to be suffering from plague, or from any illness which such officer suspects may prove to be plague, may be taken to such hospital or ward or observation camp or other suitable place as may be appointed for that purpose by the Sanitary authority of the port or place, and detained there until his recovery, or for such period, not exceeding ten days, as may be necessary for ascertaining whether his illness is, or is not, plague. The said person shall be bound to remain in the place where he is detained and to follow such instructions as the Sanitary authority may prescribe.

23. The Port Health Officer shall, in the case of every vessel certified to be *infected* or *suspected*, give directions for the disinfection of all parts of the vessel which have been inhabited by plague-patients, and he may also give such other directions for the more thorough disinfection of the vessel as may appear to him to be necessary for preventing the spread of infection. The master of the said vessel shall forthwith carry into execution all such directions.

24. In the event of any death from plague on board such vessel while detained under these regulations the master shall, as directed by the Sanitary authority, or the Port Health Officer, either cause the dead body to be taken out to sea and committed to the deep properly loaded to prevent its rising, or shall deliver it into the charge of the Sanitary authority for disposal, if the former procedure be not in accordance with caste or race customs.

25. The master shall cause to be destroyed any articles on board his vessel that may have been soiled with plague discharges, and he shall also cause to be disinfected or destroyed the clothing and bedding and other articles of personal use likely to retain infection which are on board his vessel and which have been used by any person who has suffered from plague on board such vessel, or who, having left such vessel, shall have suffered from plague during the stay of such vessel in the port. If the master shall have neglected to do so, or have done so ineffectually before the vessel arrives in port, he shall forthwith, upon the direction of the Sanitary authority or the Port Health Officer, cause the same to be disinfected or destroyed to the satisfaction of that authority, and in accordance with the instructions as to disinfection contained in the Appendix to these Regulations. If the said master neglect to comply with any such directions within a reasonable time, the Sanitary authority or the Port Health Officer shall cause the same to be carried into execution at the expense of the said vessel.

26. Provided facilities exist for obtaining suitable water in the port, the master shall, on the direction of the Port Health Officer, cause all tanks in an *infected* or *suspected* vessel to be completely emptied and cleaned and disinfected in such manner as the Port Health Officer may direct and fresh water to be taken in. The Port Health Officer may also, if he thinks necessary, give like directions in the case of a *healthy* vessel. The master of the vessel shall forthwith carry any such direction into execution.

27. Any mails or cargo which may be brought by any vessel subject to these regulations may be landed under such precautions as the Port Health Officer may deem necessary to prevent the spread of the disease.

28. It will be the duty of the Port Officer to facilitate the conveyance to all vessels detained under these regulations of such supplies of provisions, stores or other articles as may be required by those on board. Such supplies will be placed on the boats of the vessel to be subsequently removed by the crew.

29. All expenses incurred by any Sanitary authority in carrying out these regulations shall be defrayed from Municipal or District or Taluk Funds in such proportions as the District Collector may, subject to the orders of the Local Government, direct.

30. Any person disobeying or contravening any of the foregoing regulations shall be deemed to have committed an offence punishable under section 188 of the Indian Penal Code, and shall be liable on conviction to be punished with imprisonment of either description for a term which may extend to six months, or with fine which may extend to one thousand rupees, or with both.

No. 103.

No. 2091, dated Simla, the 5th September 1897.

From—J. P. HEWETT, Esq., C.L.E., Secretary to the Government of India, Home Department,

To—The Secretary to the Government of Madras, Local and Municipal Department.

I am directed to acknowledge the receipt of your endorsement No. 746-Marine, dated the 23rd August, forwarding a copy of the Notification of the Government of Madras, No. 745-Marine, of the same date, prescribing temporary regulations to be observed in all ports of the Madras Presidency to prevent the introduction of plague.

2. The regulations appear to the Government of India to be generally well adapted for the protection of the ports in the Madras Presidency on the principles laid down in the Venice Sanitary

Convention of March 1897. I am to make the following observations with regard to two of the rules:—

- (i) Rule 15 (3) provides that the healthy persons on board an infected ship shall, if possible, be disembarked for the purpose of being kept under *observation* or *surveillance*, and Rule 15 (4) describes the manner in which the *observation* should be carried out on shore or on board the vessel. In paragraph 11 of my letter No. 1624, dated the 1st June, stress was laid on the importance of landing the persons from an infected ship instead of detaining them on board. The Government of India understand that Rule 15 (3) is intended to prohibit the detention of healthy persons on board an infected ship, except when, through stress of weather or some other cause, it is absolutely impossible to land them.
- (ii) Rule 15 (5) authorizes the Port Health Officer to place under observation persons from a *healthy* or *suspected* vessel for a term not exceeding ten days from the arrival of the vessel in port. This authorization goes beyond the provisions of the Venice Convention, which limits the medical supervision of the crew and passengers of a healthy ship to ten days from the date of departure from the infected port. The first portion of Rule 15 (5), which deals with the subject of the *surveillance* of passengers, prescribes the period authorised by the Convention, and the Government of India consider that the second portion of the rule should be modified in the sense of the first portion. The modification could be effected by substituting for the words "for a term not exceeding ten days from such vessels arriving at the port" the words "for the above mentioned terms" or other words to a like effect.

No. 824-Marine, dated Ootacamund, the 21st September 1897.

No. 104.

From—The Secretary to the Government of Madras, Marine Department,

To—The Secretary to the Government of India, Home Department.

I am directed to acknowledge the receipt of your letter No. 2091, dated 8th September 1897, communicating certain observations of the Government of India in regard to the temporary regulations issued by the Madras Government to prevent the introduction of plague into the ports of this presidency.

2. In reply I am to say that the interpretation placed by the Government of India on Rule 15 (3) is in accordance with the intention

of the Madras Government. Under the Rule in question, all persons on board an infected vessel are, if possible, to be landed.

3. The proposed amendment of Rule 15 (5) has been adopted, and an erratum, of which I am to enclose a copy herewith, has been issued accordingly.

Erratum.

In Rule 15 (5) of the temporary regulations to prevent the introduction of plague into the ports of the Madras Presidency, and published in the Fort St. George Gazette of the 31st August 1897, Part I, pages 1117 to 1119 —

For.—The words “for a term not exceeding ten days from such vessel’s arrival at the port.”

Read “for the above-mentioned terms.”

BURMA.

No. 105.

No. 142—3 Z, dated Rangoon, the 5th September 1897.

From—F. C. GATES, Esq., C.I.E., Secretary to the Government of Burma,
General Department,

To—The Secretary to the Government of India, Home Department.

In compliance with the 12th paragraph of your letter No. 1626, dated the 1st June 1897, I am directed to submit a revised set of quarantine rules for the Port of Rangoon. A new set of rules had been prepared under Act I of 1870 and on the model of the rules formerly promulgated under that Act. But upon receipt of your letter No. 1926, dated the 11th August, it was considered advisable to recast the rules in the form adopted by the Government of Bengal and approved by the Government of India and thus some delay has been caused.

2. A definition of “infected port” has been added to Rule I.

In Rule II provision has been entered for the exhibition of quarantine lights by vessels arriving at night.

In Rules VII (3), VIII (6) and IX (3) provision has been made for disembarking the passengers and members of the crew who are to be kept under observation.

The Rules have been verbally altered to the imperative form throughout, and in Rule VII, clauses (4) and (5), and Rule VIII, clauses (3), (4) and (5), the duties have been laid upon specified persons.

Except for these alterations and for the necessary substitution of localities the draft now submitted follows the Calcutta rules.

3. The rules have not yet been published, and under present circumstances the Lieutenant-Governor considers it expedient to

obtain the approval of them by the Government of India. Upon receipt of telegraphic orders these rules will be published for Rangoon and rules in a similar form, but with the necessary changes in mention of localities, will be published for Moulmein, Akyab and Bassein. The existing quarantine rules at all four ports will then be cancelled by notification under Act I of 1870.

General Department.

Notification.

Dated Rangoon, the September 1897.

No. .—In exercise of the power conferred by section 2 of the Epidemic Diseases Act, 1897, and by the notification of the Government of India in the Home Department, No. 302, dated the 4th February 1897, the Lieutenant-Governor of Burma is pleased to prescribe as a temporary measure, the following rules for quarantine against plague and for the medical inspection, isolation, observation and surveillance of persons suffering from, or suspected of being infected with, plague.

These rules shall take effect from the day of 1897
in the Port of Rangoon.

I. Definitions.—

- (1) *Health Officer*.—In these rules "Health Officer" means the Health Officer of the Port of Rangoon, and includes an Assistant Health Officer and any person appointed by name or in virtue of his office to perform the duties of an Assistant Health Officer.
- (2) *Infected ship*.—Any ship with plague on board, or on which one or more cases have taken place with 12 days before her arrival, will be considered *infected*.
- (3) *Suspected ship*.—Any ship on board which there has been a case of plague at the time of departure, or during the voyage, but on which no fresh case has occurred for 12 days before her arrival, will be considered *suspected*.
- (4) *Healthy ship*.—Any ship, even though coming from an infected port, which has had no death or case of plague on board, either before departure, during the voyage, or on arrival, will be considered *healthy*.
- (5) *Observation*.—The term "observation" means that the persons subjected to it will be segregated in a lazaretto or isolation camp till they have obtained free *pratique*.
- (6) *Surveillance*.—The term "surveillance" means that the persons subjected to it will not be isolated: they will at

once obtain free *pratique*, but on arriving at their destination they will be kept under medical supervision.

(7) *Infected port*.—Means Bombay or Goa.

II. *Hoisting of yellow flag*.—The commander of every vessel, including buggalows or other native craft (a) arriving from an infected port, or (b) having plague on board, or (c) on board of which one or more cases of plague have occurred within 12 days of her arrival, shall, on arrival at the pilot station, hoist a yellow flag or, if the vessel arrives at night, show three lights, red, white and red, at the main, and indicate by signal the port from which she has come, and shall keep up such flag by day or lights by night and signal until permitted in writing by the Health Officer to haul them down. The pilot on going alongside such vessel shall direct the flag or lights prescribed above to be hoisted if such action has not already been taken.

III. *Prohibition of communication*.—The commander shall not, without first having obtained permission as hereinafter provided, allow any but oral communication with the shore or with any other vessel or boat, excepting only with the boat supplying the pilots* from the pilot brig, and in that case communication shall be limited to receiving on board the pilot, his servant and baggage.

* *N.B.*—Pilotage is compulsory for all vessels over 100 tons in the port of Rangoon.

IV. *Stoppage at Elephant Point*.—If there is any case of sickness on board, and the pilot has reason to believe that it is plague, he shall telegraph to the Health Officer from Elephant Point and not proceed beyond Elephant Point without the permission of the Health Officer.

V. *Stoppage at the Hastings Shoal*.—If the pilot has no reason to believe that there is any one suffering from plague on board, he shall bring the vessel up the river to King's Point below the Hastings Shoal, and shall anchor it there till the Health Officer has visited it.

VI. *Inspection by Health Officer*.—The Health Officer, as soon as he has received information of the stoppage of the vessel at Elephant Point or of its arrival at King's Point below the Hastings Shoal, shall visit it and ascertain by enquiry from the commander or the medical officer on board, or other sources of information, whether any person on board is suffering or has suffered from plague. For this purpose he may demand a declaration, on oath, from the doctor of the ship, or, failing him, from the captain, that there has been no case of plague on the ship since her departure.

VII. *Rules relating to infected ships*.—

(1) If an infected ship has, under Rule IV, been stopped at Elephant Point, the commander shall await the orders of the Health Officer there. If under Rule V the ship has been

- (2) Such a ship may, at the discretion of the Health Officer, be subjected to the measures prescribed in Rules VIII (2), VIII (3) and VIII (4), but the ship itself may not be disinfected as in Rule VIII (5), except with the consent of the commander or agent.
- (3) Passengers or members of the crew who, on medical inspection, are suspected by the Health Officer to be infected with plague may be disembarked and detained under observation at the observation station appointed by Government for ten days from the date on which the ship left an infected port, or, if plague occurs among them while under observation, from the date of the last case.
- (4) The rest of the crew shall not land, except on duty, for ten days from the date on which the ship left an infected port.
- (5) The crew and passengers may, at the discretion of the Health Officer, be subjected to surveillance in the manner described in Rule VIII (8) for a period of ten days from the date on which the ship left an infected port.
- (6) None of the above measures shall be taken when the ship has been given free *pratique* at Colombo or other intermediate port.
- (7) When these rules have been fully complied with the Health Officer shall, by an order in writing under his hand, to be delivered to the commander, permit the yellow flag to be hauled down.

X. *Ships carrying a doctor or stove.*—In exercising the discretion vested in him by Rules VII, VIII and IX, the Health Officer shall take into consideration the presence of a doctor or existence of a disinfecting apparatus (stove) on board the ship in question.

XI. *Crowded and insanitary ships.*—Crowded ships, ships carrying emigrants or return pilgrims, and ships which appear to be in an insanitary state, may, at the discretion of the Health Officer, be treated as suspected ships under Rule VIII.

XII. *Right of ship to put back to sea.*—Any ship objecting to submit to the obligations imposed by these rules shall be permitted to put back to sea. Such objection shall be notified on or before arriving at Elephant Point.

XIII. *Rules applying to ships claiming right to put back to sea.*—Ships which claim the right to put back to sea, but desire to disembark passengers, or land goods, shall submit to the rules relating to suspected ships.

XIV. *Provisions and stores.*—It shall be the duty of the Port Officer to facilitate the conveyance to all vessels in quarantine of such supplies of provisions, stores and other articles as may be required by those on board. Such supplies shall be placed on the boats of the vessels in quarantine to be subsequently removed by members of their crews.

No. 106.

No. 2187, dated Simla, the 28th September 1897.

From—J. P. HEWITT, Esq., C.I.E., Secretary to the Government of India, Home Department,

To—The Secretary to the Government of Burma, General Department.

I am directed to acknowledge the receipt of your letter No. 142, dated the 8th instant, forwarding a revised set of draft quarantine rules for the Port of Rangoon, drawn up in accordance with the Venice-Convention and based on the revised rules issued by the Government of Bengal on the 24th August. In the second paragraph of your letter an explanation is given of the points on which the draft rules prepared by the Government of Burma differ from the rules issued by the Government of Bengal.

2. I am to say that subject to the following remarks on one of the points mentioned in the second paragraph of your letter the draft rules are approved by the Government of India. In Rule 1 (7) of the draft rules a definition has been introduced of the term "infected port," which is stated to mean Bombay or Goa. It appears to the Government of India to be hardly necessary to introduce a definition of the term "infected port" since the Local Government could at any time issue instruction to its officers stating the ports that should be treated as infected. If, however, the Government of Burma prefer to retain a definition of the term, then it appears to the Government of India that the definition should be one of general application, and that it should not be limited to meet the circumstances of the existing case. They could suggest that the definition might be altered to the following:—

"*Infected port.*—Means any port which the Government of Burma may declare to be infected."

3. The second Appendix to the draft rules contains a set of instructions for disinfection which are taken from Chapter III of the Venice Convention.

I am to invite attention to the memorandum from this office No. 1979, dated the 20th August, forwarding a copy of alterations to be made in the translation of the convention which formed an enclosure to my letter No. 1626, dated the 1st June. These alterations have not been made in the copy of Appendix II of the draft rules forwarded

with your letter, and that Appendix is returned with the necessary alterations shown in manuscript on it.

No. 297-3-Z.—20, dated 15th October 1897.

No. 107.

From—The Secretary to the Government of Burma,

To—The Secretary to the Government of India, Home Department.

With reference to the correspondence ending with Government of India, Home Department, letter No. 2187, dated the 28th September 1897, I am directed to submit, for the information of the Government of India, and for publication in the Gazette of India, three copies of each of General Department Notifications Nos. 207, 208, 209, and 210, dated the 7th October 1897, issued by this Government, prescribing rules for quarantine against plague and for the Medical inspection, isolation, observation and surveillance of persons suffering from, or suspected of being infected with, plague in the ports of Rangoon, Moulmein, Akyab and Bassein.

Three copies of each of General Department Notifications Nos. 211 and 212 of the same date are also submitted.

*No. 207, dated Rangoon, the 7th October 1897.

NOTIFICATION—By the Government of Burma, General Department.

In exercise of the power conferred by section 2 of the Epidemic Diseases Act, 1897, by the Notification of the Government of India in the Home Department, No. 302, dated the 4th February 1897, the Lieutenant-Governor of Burma is pleased to prescribe as a temporary measure the following rules for quarantine against plague and for the Medical inspection, isolation, observation, and surveillance of persons suffering from, or suspected of being infected with, plague.

These rules shall take effect from the 18th day of October 1897 in the Port of Rangoon.

I. Definitions—

- (1) *Health Officer*.—In these rules "Health Officer" means the Health Officer of the Port of Rangoon, and includes an Assistant Health Officer and any person appointed by name or in virtue of his office to perform the duties of an Assistant Health Officer.
- (2) *Infected ship*.—Any ship with plague on board, or on which one or more cases have taken place within 12 days before her arrival, will be considered *infected*.
- (3) *Suspected ship*.—Any ship on board which there has been a case of plague at the time of departure, or during the

* Notifications Nos. 208—210 contain rules for Moulmein, Akyab, and Bassein similar to the rules for Rangoon. They are not reprinted.

voyage, but on which no fresh case has occurred for 12^d days before her arrival, will be considered *suspected*.

- (4) *Healthy ship*.—Any ship, even though coming from an infected port, which has had no death or case of plague on board, either before departure, during the voyage, or on arrival will be considered *healthy*.
- (5) *Observation*.—The term "observation" means that the persons subjected to it will be segregated in a lazaretto or isolation camp till they have obtained free *pratique*.
- (6) *Surveillance*.—The term "surveillance" means that the persons subjected to it will not be isolated: they will at once obtain free *pratique*, but on arriving at their destination they will be kept under medical supervision.
- (7) *Infected port* means any port which the Government of Burma may declare to be infected.

II. *Hoisting of yellow flag*.—The Commander of every vessel, including buggalows or other native craft, (a) arriving from an infected port, or (b) having plague on board, or (c) on board of which one or more cases of plague have occurred within 12 days of her arrival, shall, on arrival at the pilot station, hoist a yellow flag, or, if the vessel arrives at night, show three lights, red, white, and red, at the main and indicate by signal the port from which she has come, and shall keep up such flag by day or lights by night and signal until permitted in writing by the Health Officer to haul them down. The pilot on going alongside such vessel shall direct the flag or lights prescribed above to be hoisted if such action has not already been taken.

III. *Prohibition of communication*.—The Commander shall not, without first having obtained permission as hereinafter provided, allow any but oral communication with the shore or with any other vessel or

* *N.B.*—Pilots are compulsory for all vessels over 100 tons in the port of Rangoon.

boat, excepting only with the boat supplying the pilots* from the pilot brig, and in that case communication shall be limited to receiving on board the pilot, his servant, and baggage.

IV. *Stoppage at Elephant Point*.—If there is any case of sickness on board, and the pilot has reason to believe that it is plague, he shall telegraph to the Health Officer from Elephant Point and not proceed beyond Elephant Point without the permission of the Health Officer.

V. *Stoppage at the Hastings Shoal*.—If the pilot has no reason to believe that there is any one suffering from plague on board, he shall bring the vessel up the river to King's Point below the Hastings Shoal, and shall anchor it there till the Health Officer has visited it.

VI. *Inspection by Health Officer.*—The Health Officer, as soon as he has received information of the stoppage of the vessel at Elephant Point or of its arrival at King's Point below the Hastings Shoal, shall visit it and ascertain by enquiry from the Commander or the Medical Officer on board, or other sources of information, whether any person on board is suffering or has suffered from plague. For this purpose he may demand a declaration, on oath, from the Doctor of the ship, or failing him, from the Captain, that there has been no case of plague on the ship since her departure.

VII. *Rules relating to infected ships.*—

- (1) If an infected ship has, under Rule IV, been stopped at Elephant Point, the Commander shall await the orders of the Health Officer there. If under Rule V the ship has been brought up to King's Point below the Hastings Shoal, the Health Officer shall direct the Commander to take her to the sanitary station at Elephant Point, or elsewhere as may be appointed by Government, and to await orders there.
- (2) On arrival at the sanitary station the sick shall be disembarked and isolated under the order of the Health Officer.
- (3) The other persons on board (except those, if any, whose presence is necessary for the care of the vessel) shall also be disembarked and kept under observation for a period varying, in the discretion of the Health Officer, according to the sanitary condition of the ship and the date of the last case. Such period shall not exceed ten days from the date of the last case, whether that occurred on board ship or during the period of observation on shore. The Health Officer may at his discretion allow such persons to proceed to their destination on their giving a written undertaking, in the form of Appendix I, to submit themselves to surveillance by a Medical Officer appointed for the purpose at their destination for a period of ten days from the date of the arrival of the ship. The undertaking shall be executed in duplicate, and one copy shall be sent by the Health Officer to the Medical Officer concerned.
- (4) The soiled linen and personal effects of the crew and passengers, which in the opinion of the Health Officer may be considered as infected, shall be disinfected by the Health Officer in accordance with the rules contained in Appendix II.
- (5) The bilge-water shall be pumped out by the Commander after disinfection by the Health Officer and good

drinking water shall be substituted by the Commander for the water stored on board.

- (6) All parts of the ship which have been inhabited by plague-patients shall be disinfected by the Health Officer, and the other parts of the ship may also be disinfected at the discretion of the Health Officer.
- (7) When these rules have been fully complied with, the Health Officer shall, by an order in writing under his hand, to be delivered to the Commander, permit the yellow flag to be hauled down.

VIII. Rules relating to suspected ships.—

- (1) If a suspected ship has under Rule IV been stopped at Elephant Point, she will await the orders of the Health Officer there. If under Rule V she has been brought up to King's Point below the Hastings Shoal, the Health Officer will go on board of her there.
- (2) The passengers and crew shall be medically inspected by the Health Officer.
- (3) The soiled linen and personal effects of the passengers and crew, which in the opinion of the Health Officer may be considered as infected, shall be disinfected by the Health Officer in accordance with the rules contained in Appendix II.
- (4) The bilge-water shall be pumped out by the Commander after disinfection by the Health Officer and good drinking water shall be substituted by the Commander for the water stored on board.
- (5) All parts of the ship which have been inhabited by plague-patients shall be disinfected by the Health Officer, and the other parts of the ship may also be disinfected at the discretion of the Health Officer.
- (6) Passengers or members of the crew who are suspected by the Health Officer to be infected with plague may be disembarked and detained under observation at the observation station appointed by Government for ten days from arrival of the ship, or, if plague occurs among them while under observation, from the date of the last case.
- (7) The rest of the crew shall not land, except on duty, for ten days from the arrival of the ship.
- (8) Passengers who are passed on medical inspection as healthy shall be allowed to proceed to their destination on their

giving a written undertaking, in the form annexed, to submit themselves to surveillance by the Medical Officer (if any) appointed for the purpose at their destination for a period of ten days from the date of the arrival of the ship. The undertaking shall be executed in duplicate, and one copy shall be sent by the Health Officer to the Medical Officer concerned.

- (9) When these rules have been fully complied with, the Health Officer shall, by an order in writing under his hand, to be delivered to the Commander, permit the yellow flag to be hauled down.

IX. Rules relating to healthy ships.—

- (1) A healthy ship shall be given free *pratique* at once, whatever may be the nature of her bill-of-health.
- (2) Such a ship may, at the discretion of the Health Officer, be subjected to the measures prescribed in Rules VIII (2), VIII (3), and VIII (4), but the ship itself may not be disinfected as in Rule VIII (5), except with the consent of the Commander or Agent.
- (3) Passengers or members of the crew who, on medical inspection, are suspected by the Health Officer to be infected with plague may be disembarked and detained under observation at the observation station appointed by Government for ten days from the date on which the ship left an infected port, or, if plague occurs among them while under observation, from the date of the last case.
- (4) The rest of the crew shall not land, except on duty, for ten days from the date on which the ship left an infected port.
- (5) The crew and passengers may, at the discretion of the Health Officer, be subjected to surveillance in the manner described in Rule VIII (8) for a period of ten days from the date on which the ship left an infected port.
- (6) None of the above measures shall be taken when the ship has been given free *pratique* at Colombo or other intermediate port.
- (7) When these rules have been fully complied with, the Health Officer shall, by an order in writing under his hand, to be delivered to the Commander, permit the yellow flag to be hauled down.

*X. Ships carrying a doctor or stove.—*In exercising the discretion vested in him by Rules VII, VIII, and IX, the Health Officer shall take into consideration the presence of a Doctor or existence of a disinfecting apparatus (stove) on board the ship in question.

XI. *Crowded and insanitary ships.*—Crowded ships, ships carrying emigrants or return pilgrims, and ships which appear to be in an insanitary state, may, at the discretion of the Health Officer, be treated as suspected ships under Rule VIII.

XII. *Right of ship to put back to sea.*—Any ship objecting to submit to the obligations imposed by these rules shall be permitted to put back to sea. Such objection shall be notified on or before arriving at Elephant Point.

XIII. *Rules applying to ships claiming right to put back to sea.*—Ships which claim the right to put back to sea, but desire to disembark passengers or land goods, shall submit to the rules relating to suspected ships.

XIV. *Provisions and stores.*—It shall be the duty of the Port Officer to facilitate the conveyance to all vessels in quarantine of such supplies of provisions, stores, and other articles as may be required by those on board. Such supplies shall be placed on the boats of the vessel in quarantine, to be subsequently removed by members of their crews.

APPENDIX I.

I (*name*) of (*place*) do hereby declare that it is my intention at once to proceed to (*place*), and agree to submit myself to medical supervision by (*name or office of Medical Officer appointed for the purpose*) for a period of ten days from (*date from which period is to be reckoned*).

Signed

In the presence of

Health Officer.

APPENDIX II.

Instruction for disinfection.

1. Personal effects, rags, infected bandages, papers, and other articles without value should be destroyed by fire.

2. Under-clothing, bedding, wearing apparel, mattresses, carpets, &c., which are contaminated or suspected, should be disinfected in stoves at normal pressure or at a pressure of from one and-a-half to two degrees, with or without the presence of steam.

Before a stove is passed as efficient for the purposes of disinfection, it should be subjected to a test, with the aid of a signal thermometer, showing the moment when the temperature in the middle of a mattress rises to at least 100° (centigrade).

To ensure that the disinfection is effective, this temperature must be maintained for from 10 to 15 minutes.

3. *Disinfecting solutions.*—(a) Solution of corrosive sublimate of 1 part in 1,000, with the addition of 10 parts of chloride of soda.

The solution should be coloured with aniline dye or indigo. It should not be placed in metal vessels.

(b) A 5 per cent. solution of pure crystalized carbolic acid, or 5 per cent. of crude commercial carbolic acid in a warm solution of soft soap.

(c) Fresh slaked lime.*

4. *Special instructions to be observed in the employment of disinfecting solutions.*—The linen, clothing, and articles soiled by the excreta of patients should be soaked in the solution of corrosive sublimate. The solution of pure carbolic acid and the solution of soap and carbolic acid are equally suited to the purpose. The articles should remain in the solution for at least six hours.

Articles which cannot be subjected to the temperature of the stove (100° centigrade) without injury, such as leather goods, woollen articles stuck together with glue, felt, velvet, silk, &c., should be washed with the solution of corrosive sublimate; coins can be disinfected with the solution of soap and carbolic acid.

Persons engaged in nursing the sick should wash their hands and faces with the solution of corrosive sublimate, or with one of the carbolic solutions.

The carbolic solutions will be useful more particularly for disinfecting articles such as metals, instruments, &c., which can neither be subjected to a temperature of 100° centigrade, nor placed in contact with corrosive sublimate.

Slaked lime is particularly recommended for disinfecting excreta. Expecterated matter should be burnt.

5. *Disinfection of ships with plague-patients on board.*—The cabin or cabins and all parts of the ship occupied by the sick or *suspected* should be cleared out, and all articles in them should be treated as described above.

The partitions should be disinfected with the solution of corrosive sublimate with an addition of 10 per cent. of alcohol. The washing should commence from the top, horizontally, and be continued downwards, so that the whole surface of the partition becomes covered with a coating of minute drops.

* To get very strong slaked lime take lime of good quality, slake it, by moistening it gradually with half its weight of water. When the operation is completed, put the powder in a carefully-corked receptacle and place it in a dry spot. As each kilogramme of lime absorbs 500 grammes of water in order to become slack, it acquires a volume of 2 litres 200, and it is sufficient to dilute it with double its volume of water, say, 4 kilogrammes 400 grammes to obtain a whitewash which will be of about 20 per cent, strength of lime.

The boarding should be washed with the same solution.

Two hours after, the walls and flooring should be washed over with plenty of water.

6. *Disinfection of the hold of an infected ship.*—To disinfect the hold sulphate of iron, in quantity sufficient to neutralize the sulphurated hydrogen, should first be thrown in, the bilge-water should then be pumped out, and the hold washed with sea-water. Solution of corrosive sublimate should then be thrown in. The bilge-water should not be pumped out while the ship is in port.

No. 211, dated Rangoon, the 7th October 1897.

NOTIFICATION—By the Government of Burma, General Department.

With reference to Rule I, clause (7) of the foregoing Notifications Nos. 207, 208, 209 and 210, the Lieutenant-Governor declares that Bombay and Goa are infected ports.

No. 212, dated Rangoon, the 7th October 1897.

NOTIFICATION—By the Government of Burma, General Department.

In exercise of the power conferred by the Indian Quarantine Act, 1870, and with the previous sanction of the Governor General in Council, the Lieutenant-Governor cancels, with effect from the 18th October 1897, the rules for quarantine against plague contained in the undermentioned Notifications :—

Port in which rules had effect.			Port against which quarantine was imposed	Number and date of General Department Notification.
Rangoon	...	...	Bombay	190, dated the 20th October 1896.
Rangoon	...	...	Bombay	191, dated the 21st October 1896.
Rangoon	...	...	Bombay	101, dated the 27th May 1897.
Akyab	...	...	Bombay	13, dated the 20th January 1897.
Moulmein	...	...	Bombay	17, dated the 25th January 1897.
Bassein	...	...	Bombay	18, dated the 26th January 1897.

Port in which rules had effect.			Port against which quarantine was imposed.	Number and date of General Department Notification.
Rangoon	...	}	Goa ...	53, dated the 15th March 1897.
Moulmein	...			
Akyab	...			
Bassein	...			
Rangoon	...	...	Goa ...	101, dated the 27th May 1897.

APPENDIX X.

MEASURES TO PREVENT THE SPREAD OF INFECTION BY MERCHANDISE AND FOOD-STUFFS.

PAPER Nos.	CONTENTS.	PAGES.
1—4	Orders prohibiting the import of susceptible articles from the Bombay Presidency and Sind into other parts of India. ...	421—22
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rags, waste-paper and used gunny bags, from the territories administered by the Governor of Bombay in Council, including Sind, into any other part of British India.

Foreign Department Notification No. 1234-I.A., dated Simla, the 3rd April 1897. No. 4.

In exercise of the powers conferred by section 2, sub-section (1), of the Epidemic Diseases Act (III of 1897) as applied by the Notification of the Government of India in the Foreign Department, No. 443-I.A., dated the 4th February 1897, to all territories in India which are under the administration of the Governor General in Council, but are not part of British India, including all railway lands and the territories for the time being administered by the Agent to the Governor General in Baluchistan as such Agent, the Governor General in Council is pleased to prohibit the bringing of used apparel and bedding (except when carried as the personal baggage of travellers), rags, waste paper and used gunny-bags, from the territories administered by the Governor of Bombay in Council, including Sind into any part of the territories first aforesaid.

Precautions with respect to grain imported into other parts of India from Sind.

Telegram No. 269; dated Lahore, the 2nd March 1897.

No. 5.

From—The Chief Secretary to the Government of Punjab,

To—The Secretary to the Government of India, Home Department.

Large amount grain daily imported from Sind and particularly Sukkur: non-imported cases of plague reported in Sukkur: if it gets worse, question will arise whether importation of grain should be stopped or grain detained *en route* till bacilli die. Do expert advisers of Government of India consider any such measure really necessary? Effect would be very serious not merely as directly affecting importation but by creating apprehension of further restrictions which would send up prices.

Telegram No. 850, dated Calcutta, the 6th March 1897.

No. 6.

From—The Secretary to the Government of India, Home Department.

To—The Secretary to the Government of Bombay, General Department.

Your telegram 704, dated 5th. Plague cases at Sukkur. Please telegraph if any of the cases have occurred in neighbourhood of grain godowns or among employes of grain godowns or among persons connected with other trades.

No. 7.

Telegram No. 813-P., dated Bombay, the 10th March 1897.

From—The Secretary to the Government of Bombay, General Department.

To—The Secretary to the Government of India, Home Department.

Your 850, sixth. Commissioner, Sind, reports. *Begins.*—One local case in grain godown in Sukkur; 70 bags grain removed and taken charge of by Collector; rest no connection with grain. Two in confectioners' shops; two amongst milk vendors; no such cases in Hyderabad.—*Ends.*

No. 8.

Telegram No. 956, dated Calcutta, the 15th March 1897.

From—The Secretary to the Government of India, Home Department,

To—The Secretary to the Government of Bombay, General Department.

Punjab Government has raised question whether import of grain into Punjab from Sind or Sukkur should be prohibited. Government of India have replied that it would be very serious matter to prohibit import and that the trade does not add sufficiently to danger of spread of infection to make it necessary to incur evils that would result from stopping it. But Government of India consider that all possible precautions should be taken to prevent contaminated grain being exported from Sind. In especial measures should be adopted to obtain immediate information of any plague cases in or near grain godowns and to prevent removal of grain open to suspicion of contamination. Government of India will be glad to learn means adopted with view to above ends. Please also report specially occurrence of plague cases affecting grain or other export industries in Sind.

No. 9.

Telegram No. 957, dated Calcutta, the 15th March 1897.

From—The Secretary to the Government of India, Home Department,

To—The Chief Secretary to the Government of the North-Western Provinces and Oudh.

Punjab Government has raised question whether import of grain into Punjab from Sind or Sukkur should be prohibited in view of indigenous cases having occurred at Sukkur and in Sind. Government of India have replied that it would be very serious matter to prohibit import and that the trade does not add sufficiently to danger of spread of infection to make it necessary to incur evils that would result from stopping it. Bombay Government have been asked to take all possible precautions to prevent contaminated grain being exported from Sind; in especial to adopt measures to obtain immediate information of any plague cases in or near grain godowns and to prevent removal of grain open to suspicion of contamination.

Telegram No. 958, dated Calcutta, the 15th March 1897.

From—The Secretary to the Government of India, Home Department,

To—The Chief Secretary to the Government of the Punjab.

No. 10.

Your telegram dated 2nd. Import of grain from Sind and particularly Sukkur. It has been ascertained that only one case of plague has occurred in a grain godown and that proper precautions were taken with regard to contents of that godown. Sanitary Commissioner does not consider export of grain from Sind or Sukkur need be prohibited, and Government of India endorse this opinion. Government of India agree with Punjab Government that the prohibition of the import would be a serious matter and consider that it does not add sufficiently to danger of spread of infection to make it necessary to incur evils that would result from stopping it. Bombay Government are being asked to take all possible precautions to prevent contaminated grain being exported from Sind; in especial to adopt means to obtain immediate information of any plague cases in or near grain godowns and to prevent removal of grain open to suspicion of contamination.

Telegram No. 1073-P., dated Bombay, the 22nd March 1897.

From—The Secretary to the Government of Bombay, General Department,

To—The Secretary to the Government of India, Home Department.

No. 11.

My telegram 1813-P. of tenth. Grain in question destroyed.

Telegram No. 1092, dated Calcutta, the 26th March 1897.

From—The Secretary to the Government of India, Home Department,

To—The Secretary to the Government of Bombay, General Department.

No. 12.

My telegram 956, dated 15th March. Export of grain from Sind. Government of India will be glad to receive information regarding measures adopted to prevent export of contaminated grain.

Telegram dated Bombay, the 29th March 1897.

From—The Under Secretary to the Government of Bombay, Revenue Department,

To—The Secretary to the Government of India, Home Department.

No. 13.

Your telegram 15th instant. Import of grain into Punjab from Sind or Sukkur. Commissioner, Sind, telegraphs :—*Begins.* 354. Your telegram dated sixteenth was sent all District officers with instructions detain grain in any way suspected and examine grain godowns for dead rats. Hyderabad replies no plague cases near grain godowns; will keep sharp look out. Shikarpur replies that orders have been issued prohibiting export of grain from godowns situated in the infected area of Sukkur. Karachi reports no grain exported to Punjab

since December last. In inspecting godowns all old bags and loose grain have been destroyed and most of the large godowns have been cleaned upon your telegram at my request. General Cooke has been arranging for military party to regularly inspect grain godowns and bakeries.—*Ends.*

No. 14.

No. 2723, dated Bombay Castle, the 6th April 1897.

From—A. M. T. JACKSON, Esq., I.C.S., Under Secretary to the Government of Bombay,

To—The Secretary to the Government of India, Home Department.

In continuation of my telegram dated 29th March 1897. I am directed to forward, for the information of the Government of India, copies of the papers noted in the margin relating to the measures taken to prevent exportation of contaminated grain from Sind,

Memorandum from the Commissioner in Sind, No. 1548, dated 30th March 1897, and accompaniments,

No. 1548, dated Karachi, the 30th March 1897.

Memo. from—A. WINGATE, Esq., Acting Commissioner in Sind,

To—The Secretary to the Government of Bombay, General Department.

In reference to the telegram No. 354, despatched on 27th instant, in

1. Commissioner in Sind's No. 1297, dated 17th March 1897.
2. Civil Surgeon, Sukkur's letter No. 394, dated 17th March 1897.
3. Collector of Hyderabad's No. 1267, dated 18th March 1897.
4. Deputy Commissioner, Upper Sind Frontier's No. 1016, dated 19th and 21st March 1897.
5. Collector of Shikarpur's No. 2080, dated 22nd and 21st March 1897.
6. Collector of Karachi's No. 2353, dated 25th March 1897.
7. Deputy Commissioner, Thar and Parkar's No. 346, dated 25th March 1897.
8. Commissioner in Sind's No. 1485, dated 26th March 1897.
9. Commissioner in Sind's No. 1529, dated 29th March 1897.

reply to the telegrams, dated 16th and 27th instant, from the Secretary to Government, Revenue Department, the Acting Commissioner begs to forward for the information of the Government the papers marginally noted, relating to the measures taken to prevent exportation of contaminated grain from Sind.

No. 1297, dated Karachi, the 17th March 1897.

Endorsed by—J. SLADEN, Esq., Assistant Commissioner in Sind.

Copy forwarded to the three Collectors and two Deputy Commissioners in Sind for favour of immediate report.

2. Grain in any way suspected should be detained and the matter reported for orders.

3. Grain godowns should be examined, and if dead rats are found in the godowns, the grain should be detained.

No. 394, dated the 17th March 1897.

From—The Civil Surgeon, Sukkur,

To—The Commissioner in Sind.

In continuation of my letter No. 341, dated 11th instant, I have the honour to state that for the week ending 15th March 1897 fifteen fresh cases of plague have occurred, making a total of 29 from the beginning of the outbreak, of which 22 have proved fatal and 7 are under treatment at the Contagious Landhies.

2. Of the 15 fresh cases, there is distinct evidence that 13 either had communication with, or resided in, the infected area mentioned in my last weekly report; of the remaining 2 cases, no reliable information could be obtained from one, as the patient was found migrating to a village on foot, and, when arrested by the police, was semi-delirious, the other case showing no direct signs of infection, beyond the fact that two cases had previously occurred in his neighbourhood.

3. The following few facts may prove interesting in proving how the disease, once localised, infects the neighbourhood.

When the disease first began to establish itself in Sukkur, it was reported by the Sanitary Inspector that several dead rats were frequently being found outside a Hindu temple, and to which there was a well adjoining, at the entrance of Gunga Lane, where the disease first took root. I investigated the place several times, and though I saw several rats in the act of drinking water from the drain which communicates with this sacred well, I never witnessed any of them dying or dead, as the Sanitary Inspector assured me he had seen them come out and drink, and while in the act of drinking get convulsed and die. I interviewed the Head Fakir on each occasion, and as there was a godown in which grain was stored just behind this temple, I was led to believe that the rats found their way to this well from the godown. However, I reported the matter to the Collector on the 4th instant, immediately on his arrival in Sukkur, and it was arranged to force open the godown that evening (as the owners had deserted), with the result that beyond a certain amount of ordinary accumulation of dust, the godown was found practically clean and free from all insanitary defects. About five days subsequent to this it was reported that this Head Fakir had deserted to a village about 10 miles out of Sukkur and died suddenly the day after his arrival there; this naturally excited suspicion and the temple was closely watched.

On the morning of the 11th, it was reported to me, *sub rosa*, that a man was lying ill in this very temple. I accordingly forced my way in and found such to be the case. I met with some opposition, but was able to force my way into every room and found 2 men

concealed in different rooms, one plague-stricken, and the other, who was evidently the next representative of the temple, concealing himself through fright, but apparently in good health. I had the two plague cases at once removed to the Contagious Landhi, and the other man to the Health Camp; a fourth man had in the meantime escaped, but he was found two days after and removed in a critical condition to the Contagious Landhi. I then drove off to the Collector and he very kindly returned with me and, at my suggestion, ordered the whole building to be destroyed and burnt, and the well to be closed, after having the value properly assessed.

The three patients removed to the Contagious Landhi died as well as the headman who was sent to the Health Camp, and in the course of demolishing the building, no fewer than 35 dead rats were removed, so that the whole of the 5 inmates, including the man who died in the village outside of Sukkur, were exterminated within 10 days. The conclusion one is apt to draw from this is that the infection probably first began in this temple and that it was a perfect hotbed of infection, as all the Hindus from Gunga Lane and other lanes in the neighbourhood were in the habit of congregating and worshipping in this temple, but that they managed to conceal the danger from us until suspicions were aroused by the Head Fakir's death, and it is now evident that these rats were being poisoned from the neighbourhood of the temple and not from the adjoining grain godown to which our suspicions first pointed.

No. 1267, dated Hyderabad, the 18th March 1897.

From—C. G. DONOSON, Esq., Collector of Hyderabad,

To—The Commissioner in Sind.

In reply to your endorsement No. 1297, dated 17th instant, I have the honour to inform you that I do not think that grain export should be stopped. I know of no cases of plague near grain godowns, but I will keep a sharp lookout.

No. 1016, dated Jacobabad, the 19th—21st March 1897.

From—H. C. MILES, Esq., Deputy Commissioner, Upper Sind Frontier,

To—The Commissioner in Sind.

In reply to your No. 1297 of the 17th March 1897, I have the

Precautions to be taken to prevent contaminated grain being exported from Sind.

honour to state that with the exception of one imported case from Sukkur, which was quarantined on arrival and isolated when the disease developed, no case of plague has occurred at Jacobabad or in the Upper Sind Frontier District. Consequently there appears to be no reason, so far as fear of possible infection is concerned, for prohibiting the export of grain.

3. Should plague make its appearance, the instructions contained in paragraphs 2 and 3 of your letter will be followed.

No. 2080, dated Sukkur, the 22nd—23rd March 1897.

From—COLONEL ALFRED MAYHEW, Collector of Shikarpur;
To—The Commissioner in Sind.

With reference to your endorsement No. 1297 of the 17th instant, I have the honour to report that there are godowns of grain situated in the infected area of Sukkur, *viz.*, in Gunga Lane, Miani Road, Fakir Street. Orders have been issued prohibiting export of grain from these godowns.

2. As these godowns are being cleaned and lime whitewashed, they will be examined with a view to find if any dead rats are there.

No. 2117, dated Karachi, the 18th March 1897.

Endorsed by—R. GILES, Esq., Collector of Karachi.

Forwarded for immediate report to the Mukhtiarkar of Karachi, who is requested to state whether the number of grain godowns is very large, and whether he could carry out the enquiry or if it would be necessary to appoint a special officer.

2. The information required is—

(1) Whether plague cases have occurred in or near grain godowns.

(2) Whether any grain open to suspicion has been removed or is detained by orders.

3. The Collector is asking all Superintendents to report at once any case where plague has occurred near a grain godown and to stop the removal of the grain in such a case, pending further orders.

No. 235, dated Karachi, the 23rd March 1897.

From—FRANROZE E. PANTHEY, Mukhtiarkar of Karachi,
To—The Collector of Karachi.

With reference to your endorsement No. 2117, dated 18th March last, on the subject of the inspection of the grain godowns, I beg to state that it is very difficult to give a correct idea of the number of grain godowns now existing in Karachi. Even the most experienced and well-informed merchants as well as brokers are not in a position to do so owing to people having gone away and closed their godowns. But from my personal observation and experience as well as from enquiries instituted from merchants and others, I find that there are at present only 60 to 70 godowns out of about 200 existing before the plague, with stock in them; the rest are all empty. These are the godowns where grains are stored for exportation purposes; but besides these there is a larger number of smaller godowns, where shopkeepers

have stocked their supplies for local consumption. Such godowns will number about 500 to 600, for with every shop in the town there is a small godown attached either in the shop or somewhere adjacent ; but even many of these godowns are closed and empty. Godowns of both denominations are scattered about in all the localities of the town. Some of these godowns are near or adjacent to infected houses, and in some, cases of plague have occurred ; but correct information on this point can be obtained from the Superintendents. If it is intended to examine the few big godowns where grain for exportation is kept, I shall probably be able to carry out the inspection with an additional staff, but shall not be able to devote my whole time with grains so stored ; but if it is intended to examine all the godowns, big or small export or otherwise, it would not be possible for me, in addition to my present duty, to carry out the work ; in that case it will be desirable to appoint a special officer, who can devote more time on this work.

Grains from godowns close to infected houses have been exported.

At present no grain is exported from Karachi to Punjab. In December last about 3,000 bags were exported by three native merchants to the Punjab.

Grain from Karachi is now chiefly exported to Bhaunaggar, Virawal, Bombay, Makran and Lus.

No. 2353, dated Karachi, 25th March 1897.

Memo. by—R. GILES, Esq., Collector of Karachi.

True copies submitted to the Commissioner in Sind in reply to his endorsement No. 1297, dated the 17th instant. The Collector also called for reports from the Superintendents in charge of the City Quarters.

2. Five samples of grain sent by Mr. Cadell from a grain shop in the market quarter, from the places on which dead rats were lying, are also forwarded. The rats had apparently been dead for more than a month and were dried up.

3. Mr. Gloster reported that "in all cases where dead rats are found in or near grain and in cases of plague occurring in close proximity to a flour mill or grain store, he destroyed the loose grain and grain in open bags, transferring grain in closed bags to new bags and disinfecting the old ones."

4. He asks orders regarding a considerable quantity of such grain which is under detention, and whether it should be handed over to the owners.

5. Mr. Cadell has also burnt loose grain, where dead rats were found, and all old bags, new ones being put in the sun and disinfected.

6. His third paragraph runs as follows :—

"I think this is all that can be done, for the following reason. Most of the big grain godowns have been cleared, not by us, but by the owners. This has been necessary, both because the latter have the right to do so, and because the labour of cleaning such big godowns would be so great that the Municipality would not be justified in undertaking it, unless absolutely obliged to do so. Now, we cannot exercise supervision over all the private godowns, nor know how many dead rats are found therein. All we can do, as has invariably been done, is to see that the owner has cleaned his godown, burning all the loose grain before we pass it."

7. The above information will show the Commissioner that in order to deal efficiently, an intelligent officer must be appointed with a considerable staff under him. Small godowns would, as a rule, be more dangerous than large ones, and the number of small ones is very large.

8. The Collector at once directed the Superintendents to detain grain in any godown where plague had occurred or dead rats been found, and instructions regarding grain so detained are requested.

No. 57, dated Mirpur Khas, the 23rd March 1897.

From—BHAG CHAND, Mukhtiarkar, Mirpur Khas,

To—The Deputy Commissioner, Thar and Parkar.

With reference to your office endorsement No. 311, dated the 20th instant, I have the honour to state that I have seen all the grain godowns in the town, and found no dead rats in any. They are all kept clean.

No. 346, dated Umarkot, the 25th March 1897.

Endorsed by—C. STEELE, Esq., Deputy Commissioner, Thar and Parkar.

Copy forwarded to the Commissioner in Sind with the compliments of the undersigned in reference to his endorsement No. 1297, dated 17th instant.

No. 1485, dated Karachi, the 26th March 1897.

From—A. WINGATE, Esq., C.I.E., I.C.S., Acting Commissioner in Sind,
To—The Chairman, Plague Committee, Karachi.

I venture to append copies of the correspondence noted in the

Government telegram dated the 16th March 1897.

Commissioner's No. 1297, dated the 17th March 1897.

Collector of Karachi's No. 2117, dated the 18th March 1897.

Mukhtiarkar of Karachi's No. 235, dated the 23rd March 1897.

Collector of Karachi's No. 2353, dated the 25th March 1897.

margin regarding plague in grain godowns, as I think that your Committee might detail a Military Officer with a party of men to make a thorough inspection of the godowns under rules which your Committee could prescribe. Several bakers seem to have been attacked

by plague. This is not unnatural, because rats go to grain and being infected die there, and so grain godowns and bakers' shops become infected.

The grain or flour near or on which any rat is found may, please, be carefully collected and marked, and it will be sent to Bombay for examination by experts. I would also venture to suggest that the officer detailed to this duty should arrange for daily inspection of all bakeries and persons employed therein.

Note by the Commissioner in Sind.

General Cooke has informed me that a party is being detailed as requested.

No. 1529, dated Karachi, the 29th March 1897.

Endorsed by—A. WINGATE, Esq., C I.E., I.C.S., Acting Commissioner in Sind.

Copy forwarded for information to the—

Collector of Hyderabad, with reference to his No. 1267, dated 8th instant.

Collector of Shikarpur, with reference to his No. 2080, dated 22nd—23rd instant.

Deputy Commissioner, Thar and Parkar, with reference to his No. 346, dated 25th instant.

Deputy Commissioner, Upper Sind Frontier, with reference to his No. 1016, dated 19th—21st instant.

2. The Government of India attach great importance to detention of suspected grain, and the Acting Commissioner would therefore request that a special inspecting staff may be appointed for godowns and bakeries in infected towns, similar to that organised for Karachi by General Cooke.

Information of the action taken and the results should be furnished in the weekly reports.

No. 1501, dated Karachi, the 27th March 1897.

Memorandum from—A. WINGATE, Esq., Acting Commissioner in Sind,
General Department,

To—The Secretary to the Government of Bombay, General Department.

The Acting Commissioner in Sind presents his compliments and, with reference to Government telegram, dated 16th instant, has the honour to forward five samples of grain taken from a grain shop in the market quarter at Karachi on which dead rats were lying, for favour of examination by an expert for plague bacillus. The rats had apparently been dead for more than a month and were dried up.

6. His third paragraph runs as follows :—

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Dated Municipal Laboratory, Bombay, the 16th April 1897.

From—E. H. HANKIN, Esq., M.A., Chemical Examiner and Bacteriologist,
North-Western Provinces and Oudh. No. 15.

To—The Secretary to the Government of Bombay, Revenue Department.

In reply to your No. 6587, dated 15th April 1897, I have the honour to state that I have received five samples of grain sent by the Commissioner in Sind for examination as to the presence of the bubonic microbe.

2. Extracts of each of these specimens were injected into mice. One specimen contained a piece of the skin of a dead rat. This was separately extracted and injected into a mouse. Three of the mice have survived. Two died of malignant œdema, and the last died without showing any sign of microbic infection. In no case was any appearance of the presence of the bubonic microbe met with. I note that in the case of the grain on which dead rats were lying, it is stated they appeared to have been dead for more than a month. So far as my knowledge of the bubonic microbe goes, it is not likely that it would survive in a rat for so long a period.

APPENDIX XI.

REGULATIONS AGAINST ARRIVALS FROM INDIA ENFORCED IN OTHER COUNTRIES.

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APPENDIX XI.

REGULATIONS AGAINST ARRIVALS FROM INDIA ENFORCED IN OTHER COUNTRIES.

Summary of Regulations.

No. 1.

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Morocco	28 Zanzibar
Muscat	22	...

*Date of Regulation.	Purport of Regulation.
November 9th, 1896.	EUROPE.
	(1) UNITED KINGDOM.
	Arrivals from Indian infected ports were treated under the "General Regulations as to Cholera, Yellow Fever and Plague" issued by the Local Government Board on the 9th November 1896. The following is the purport of these Regulations:—
	<p>The customs-officer shall visit the ship, and if he suspects that the ship is infected or has come from an infected place, he shall require the master or surgeon to state whether there has been any case or suspected case of plague, etc., on board. If he finds or has reason to suspect that the ship is infected, he shall detain the ship and inform the sanitary authority of the port.</p> <p>Sanitary authorities of ports shall fix moorings for infected ships and make provision for the reception of persons suffering from plague, etc. On receiving notice from the customs-officer the sanitary authority shall cause the ship to be inspected by the Medical Officer of Health. The Medical Officer of Health may also examine any ship which he has reason to suspect to be infected or to come from an infected port. The detention by the customs-officer shall cease as soon as the vessel has been examined by the medical officer, or if the ship is infected, as soon as she is anchored at the mooring appointed for infected ships.</p> <p>If the medical officer finds the ship to be infected, he shall give a certificate to that effect, and the master shall then moor the ship at the appointed anchorage. No one shall then leave the ship until the detailed examination is completed. The medical officer shall examine every person on board, and if he finds or suspects any one to be suffering from plague, etc., shall give a certificate to that effect with respect to such person. Any person certified to be suffering from plague, etc., shall, if his condition admit of it, be removed to a hospital or other suitable place appointed for the</p>

* The dates are in many instances only approximate.

Date of Regulation.

Purport of Regulation.

purpose, there to remain until certified free from the disease. If he cannot be removed, the ship shall remain subject to the control of the medical officer, and the person shall be detained on board until the medical officer grants permission for his disembarkation. Any person certified to be suffering from illness which may be plague, etc., shall be detained on board or on shore for two days, and if found to be suffering from plague, etc., shall be treated in the manner stated above. No other person shall be allowed to land from the ship until he has satisfied the medical officer as to his name, intended place of destination and intended address. These particulars shall be communicated to the local authority of the place in which the intended destination is situated. Any person thus permitted to land who within forty-eight hours after landing arrives at any address other than that communicated to the medical officer shall immediately report his address to the local authorities.

The medical officer shall give such other directions and take such other steps as may appear to him to be necessary to prevent the spread of infection from the ship. If any death from plague, etc., occurs on board whilst the ship is detained, the body shall be disposed of according to the prescribed directions. The clothing, bedding and other articles of personal use likely to retain infection belonging to sufferers from plague, etc., shall be disinfected or destroyed. The master shall cause the ship to be disinfected, and articles that may probably be infected (other than those mentioned above) to be disinfected or destroyed.

When a ship which is not infected has passengers on board who are in a filthy or otherwise unwholesome condition, or has come from an infected place, the medical officer may give a certificate stating these facts. The rules regarding passengers from an infected ship shall then apply to the vessel thus certified.

The medical officer may direct the bilge-water and water ballast of infected vessels or vessels from

Date of Regulation.	Purport of Regulation.
	<p>an infected place to be pumped out at a suitable place before the vessel enters any dock or basin. On the sanitary authority providing a proper supply of water for drinking and cooking, the medical officer may direct all casks and tanks containing such water to be emptied and cleaned.</p> <p>(3) FRANCE (AND ALGERIA).</p>
January 4th, 1897.	On this date the French Government issued a decree prescribing a set of general regulations to prevent the infection of exotic epidemic diseases being imported into the French ports. These regulations were based on the Sanitary Conventions of Venice, 1892, Dresden, 1893, and Paris, 1894, and they are reproduced in this appendix.
January 19th, 1897.	<p>Importation into France and Algiers of the articles named in the subjoined list prohibited from Bombay and other infected Indian ports.</p> <p>Cotton and other rags, body linen, personal effects, and clothing and bedding (when not carried as baggage), raw hides and undressed leather, animal matter and refuse, claws and hoofs.</p> <p>The transit trade in the same articles prohibited if involving unloading or handling.</p>
January 20th.	Stringent sanitary regulations, in accordance with the decree of the 4th January, applied to Southern French ports in communication with the East, and at those in the north in communication with Plymouth.
January 28th, 1897.	Goods arriving directly or indirectly from Bombay, Karachi or other infected place in India admitted only at Marseilles; Pauillac, Saint Nazarre, Havre, Dunkirk, and Algiers. All bales containing susceptible articles coming from ports on the West Coast of India, other than infected ports, to be accompanied by a certificate of origin.
February 2nd, 1897.	Dunkirk. Four days' quarantine imposed on healthy arrivals from infected ports, and nine days'

Date of Regulation.	Purpose of Regulation.
February 10th, 1897.	<p>quarantine on infected vessels. After the removal of the sick persons from infected vessels, the goods and passengers to be disinfected.</p> <p>Landing of all goods from plague-infected ports absolutely prohibited at the Mediterranean ports. Landing of non-interdicted goods at northern ports permitted after disinfection. Disembarkation of passengers from infected ports only permitted at Pauillac, Saint Nazaire, Havre and Dunkirk. Disembarkation permitted only after eight days' observation at Pauillac and Saint Nazaire and four days at Havre and Dunkirk; and after disinfection of baggage.</p>
March 18th, 1897.	<p>Marseilles. Arsenicated and dry salted hides from India admitted. Landing of undressed leather, raw hides, rags, animal refuse, and wool prohibited even in transit. Oilseeds, copra and carpets to be disinfected. If there were no sickness on board or death during the voyage, passengers permitted to land after medical inspection and disinfection of baggage. Steamers with interdicted cargo for English ports permitted to discharge other cargo in quarantine.</p>
April 12th, 1897.	<p>Marseilles. All vessels coming from infected ports in India and the Persian Gulf subjected to 36 hours quarantine. Linen and effects of the crew and passengers and accessible parts of the ship disinfected. If healthy the passengers disembarked in lighters after the necessary disinfection.</p> <p>The vessels subjected to these precautions unless certified to be from non-infected ports.</p>
April 16th, 1897.	<p>Regulations regarding goods for France and Algiers based on the Venice Sanitary Convention of March 1897:—</p> <p>(i) Importation of the articles named in the subjoined list coming directly or indirectly from plague infected localities prohibited:</p> <p>Rags, animal refuse, claws and hoofs.</p>

Date of Regulation.	Purport of Regulation.
	<p>(ii) The transit trade in the articles same prohibited if involving unloading or handling.</p> <p>(iii) Raw and manufactured wool arriving directly from an infected locality admitted only after disinfection. Used and unused body linen, personal effects, clothing, and bedding, raw hides and untanned skins, coming directly or indirectly from an infected locality, admitted only after disinfection.</p> <p>(iv) Vessels coming from infected localities or carrying goods named in article (iii), only permitted to enter the ports of Marseilles, Algiers, Pauillac, Saint Nazarre, Havre and Dunkirk.</p> <p>(v) Bales containing goods mentioned in articles (i) to (iii) coming from ports in the Persian Gulf and on the West Coast of India, other than infected ports, to be accompanied by a certificate of origin.</p>
Final ...	<p>Subsequently passengers were allowed to land at Marseilles from healthy ships with the sole restriction that soiled linen and bedding had to be disinfected before being brought on shore.</p>
Before the Venice Sanitary Conference.	<p>(3) ITALY.</p> <p>During the height of the epidemic and before the Venice Sanitary Conference vessels arriving from Bombay, Karachi and other infected ports were only permitted to land passengers after a process of disinfection so onerous that ships of the P. and O. Company merely landed the mails at Brindisi and then carried their passengers to England.</p>
December 1896.	<p>Importation of fresh, arsenicated and dry salted hides, wool, horse-hair, animals and portions of animals and rags prohibited.</p>
May 8th, 1897.	<p>Regulations based on the Venice Sanitary Conference.</p>

Date of Regulation.	Purport of Regulation.
	<p><i>Healthy</i> vessels allowed free pratique after medical inspection ; disinfection of wearing apparel, domestic effects and other luggage either before embarkation, during the voyage or at the time of arrival ; pumping out of the bilge-water after disinfection and the substitution of fresh drinking-water for the water stored on board.</p> <p><i>Suspected</i> vessels carrying a medical officer admitted to free pratique after the adoption of the precautions for healthy vessels, and in addition the disinfection of the effects belonging to the plague sufferers and their attendants, and of the cabins in which the plague sufferers resided. In the case of vessels which do not carry a medical officer or disinfecting apparatus, the ship to be detained in quarantine until the disinfection and other sanitary precautions have been completed.</p> <p><i>Infected</i> vessels to be detained in quarantine and to undergo such treatment as may in each case be prescribed by the Minister of the Interior. Importation, either direct or indirect, from infected localities of all the articles enumerated in the <i>susceptible</i> list of the Convention, except raw silk, old sacking, carpets, and old embroidery, prohibited. Interdicted goods coming from a healthy port in an infected country to be accompanied by a medical certificate and certificate of origin.</p> <p>The medical inspection of ships to take place during the daytime.</p>
July 2nd, 1897.	<p>To facilitate the execution of the prescribed measures a doctor will, on application, be appointed at Port Said by the Italian authorities to any vessel bound for Italy. This doctor will be entrusted with the general sanitary surveillance on board the ship during the passage from Port Said to the Italian port of destination. Within twenty-four hours of arrival he is to ascertain that the disinfection of soiled articles of wearing or domestic apparel has been carried out, and to make a medical examination of all persons on board. On arrival the doctor will lodge with the harbour authorities a statement certifying</p>

Date of Regulation.	Purport of Regulation.
January 8th, 1897.	to the sanitary condition of the vessel and suggesting the treatment to be adopted. If everything is satisfactory, the vessel will be immediately granted free pratique.
	(4) BELGIUM.
February 6th, 1897.	The royal decree of the 15th July 1895, relating to cholera, applied to plague in the case of arrivals from British India. The decree of the 15th July was drawn up in conformity with the Dresden Sanitary Convention of 1893. It forbids the importation from infected localities of rags and of used linen, clothing, personal effects and bedding. Exception is made in the case of compressed rags conveyed in bales as merchandise, and certain mercantile waste products not liable to contamination. Healthy, suspected and infected vessels treated according to the Dresden Convention of 1893.
	In the case of vessels arriving from infected ports, all parts of the ship which it may be deemed necessary to disinfect to be disinfected.
	The bilge-water to be pumped out and a fresh supply of drinking-water to be taken on board.
	All persons on board to be medically examined.
	The ship's papers to be examined in order that the nature of the cargo may be ascertained.
	To facilitate these measures the vessel may be detained at the sanitary station for one tide.
	Certificate of origin must be produced for suspicious or interdicted goods from healthy ports.
Importation of the following articles forbidden even in transit :—	1. Green hides, salted or pickled, raw hides, hoofs, etc., fresh animal matter, etc.

Date of Regulation	Purport of Regulation.
	<p>(Exception is made in the case of salted green hides which have been treated with arsenic, which are admitted for sale in Belgium.)</p> <ol style="list-style-type: none"> 2. Wearing apparel, bedding (used or unused). 3. Old or new carpets, woollen goods (used or unused), silk stuffs. 4. Peacock feathers and small articles, imported retail, which might carry the germs of infection. 5. Bottles of liquor and perfumes, imported retail. 6. Dress goods, drill, etc., not packed in compressed bales and secured with hoops. 7. Samples of raw wool, cotton, and jute, if not compressed and bound with hoops. <p>The goods mentioned in Nos. 2, 3, 4, 6 and 7 can be admitted after having been disinfected by the apparatus at the Doel Sanitary Station.</p> <p>Articles admitted in transit but not for sale in Belgium—</p> <ol style="list-style-type: none"> 1. Raw wool in pressed bales bound with hoops. 2. All dress goods and drill stuffs packed in pressed bales and bound with hoops. <p>The sanitary authorities may order the bales to be sprinkled with disinfectants before they are unloaded from the vessel.</p>
February 17th, 1897.	<p>The following substituted for No. 7 in the list above.—</p> <p>All textile or similar products, whether of an animal or vegetable nature—such as wool, cotton, jute, fibres of these products, cocoanut fibre, etc.—if not packed in compressed bales and bound with hoops.</p>

Date of Regulation.	Purport of Regulation.
March 12th, 1897.	Arsenicated hides admitted. All admissible goods disinfected at Doel.
April 5th, 1897.	<p>Regulations based on the Venice Sanitary Convention:—</p> <p>Importation from an infected locality of all the articles mentioned in the Venice Convention "susceptible" list, prohibitive. Provided that exemption may be granted by ministerial decree in the case of raw wool, raw hides and untanned skins, and certain classes of rags and carpets, subject to whatever precautions may be prescribed with respect to packing, disinfection, etc. The transit of the interdicted articles is permitted if they are packed in such a manner that they cannot be handled on the way. A certificate of origin may be required in the case of articles on the interdicted list coming from a healthy locality. Import or transit may be permitted although the interdicted article has passed through an infected locality if it be proved that it could not have been contaminated. <i>Infected, suspected, and healthy</i> ships to be treated in accordance with the Venice Sanitary Convention.</p>
May 1st, 1897.	The whole of the Bombay Presidency and Sind, except the extreme east of Sind, treated as infected for the purpose of the regulations. Articles on the interdicted list coming from other Indian ports, to be accompanied by a certificate of origin.
May 5th, 1897.	Hides from infected localities, admitted if both salted and arsenicated.
(5) MALTA.	
December 30th, 1896.	Pratique refused and passengers prevented from landing if there is a case of fever on board the vessel.
January 6th, 1897.	Two days' quarantine imposed on arrivals from Indian ports.
January 19th, 1897.	Quarantine increased to twenty-one days.

Date of Regulation.	Purport of Regulation.
January 22nd, 1897.	Absolute prohibition of the disembarkation of passengers, crew and merchandise. Vessels permitted to come and take provisions.
January 27th, 1897.	Arrivals from Mediterranean ports which have been in India within thirty days subject to medical inspection and disinfection.
February 2nd, 1897.	Healthy vessels from India permitted to land passengers at Como island. Passengers subjected to twenty one days' quarantine and their clothes and linen disinfected. Vessels permitted to coal at Corminotto.
May 11th, 1897	Restrictions removed in the case of vessels arriving from Indian ports east of Cape Comorin.
May 22nd, 1897	Arrivals from Bombay and Karachi permitted to coal and take in provisions in the quarantine harbour. Passengers who have been in Bombay or Karachi within thirty days to be detained in the lazaretto for a period not less than seven days from the date of disinfection and sufficient to complete the period of thirty days from the date of departure. The importation of cotton seed from infected ports forbidden. The importation of rags forbidden. The importation of the following articles forbidden before disinfection. wearing apparel, solid linen and clothing, bedding materials, hides, feathers, bones and jute goods.
July 9th, 1897.	The restrictions in the case of vessels from Bombay and Karachi confined to vessels which have not been admitted to free pratique in any port in the Adriatic or Mediterranean Sea, or which have not, to the satisfaction of the Chief Government Medical Officer, been thoroughly disinfected before being admitted to such pratique.
(6) GIBRALTAR.	
February 1st, 1897.	Vessels from India refused pratique and passengers and goods not to be landed. Mails and specie landed in quarantine. Vessels permitted to coal and take in provisions in quarantine.

Date of Regulation	Purport of Regulation.
February 15th, 1897.	<p>Importation of the following articles from Bombay and Karachi prohibited : Rags, used wearing apparel, unwashed body and bed clothing (including passengers' baggage).</p> <p>(12) SPAIN.</p>
October 14th, 1896.	Quarantine imposed against arrivals from Bombay.
February 22nd, 1897.	<p>Arrivals from India subjected to three days' observation. Importations from Bombay of rags, old clothes, tissues, mattresses, beltry, feathers, animal hair, horns, hoofs, wool, silk, linen, hemp, jute, etc., prohibited.</p>
March 5th, 1897.	<p>Fourteen days' quarantine enforced against passengers from Bombay; and a longer period if a case of plague occurred on board.</p> <p>(13) PORTUGAL.</p>
February 2nd, 1897.	<p>Vessels, cargoes and passengers from Indian ports disinfected in quarantine. All vessels from India not admitted.</p>
February 20th, 1897.	<p>Lisbon, the only port open for landing mails and passengers' baggage. All arrivals subject to quarantine and disinfection. Patterns and postal parcels not admitted.</p>
April 17th, 1897.	<p>Importation of the following articles from India as a rule prohibited :—</p> <ul style="list-style-type: none"> (a) hair, horsehair, and feathers, when in their natural condition ; (b) patterns and postal parcels of any kind ; (c) hides and skins, either fresh or dried, and tanned hides if the hair remains on ; (d) animal refuse ; (e) green pulse and vegetables ;

Date of Regulation.	Purport of Regulation.
	<p>(f) used furniture, stuffs, and tissues for ornamenting walls, etc.;</p> <p>(g) rags, shavings of wood or paper, waste filaments, and other articles of the same nature;</p> <p>(h) clothes and wearing apparel, shoes, beds, and personal effects;</p> <p>(i) cotton, hemp, wool, linen, and silk if not manufactured;</p> <p>(j) skins of olives and grapes;</p> <p>(k) vegetable substances such as hay and herbs even though compressed and packed in bales;</p> <p>(l) live animals.</p> <p>Baggage of travellers admitted after rigorous disinfection. Interdicted articles may be admitted without quarantine, but after any measure of disinfection that may be prescribed, if they have been lying a long time in a European port, or if they have been transformed by industrial process.</p>
	(14) RUSSIA.
February 19th, 1897.	All Indian ports declared contaminated.
March 16th, 1897.	<p>Vessels only allowed to enter and discharge at Seas, at Theodo-Batoum, and Poti. On arrival vessels from infected ports subjected to ten days' quarantine, after which they may discharge cargo.</p> <p>The exterior packing of tea chests subject to disinfection. All other goods landed without disinfection unless believed to have come into immediate contact with plague patients. In such case the</p>

Date of Regulation.	Purport of Regulation.
	<p>exterior packing or superficial layer of goods is subject to disinfection.</p> <p>(15) NORWAY.</p>
February 1st, 1897.	<p>All ports in British India declared infected. Cargo can duly be discharged at the Christiania quarantine station.</p> <p>(16) ROUMANIA.</p>
January 17th, 1897.	<p>Muhammadans dissuaded from going on pilgrimage and those who go to be subjected to rigorous inspection on return. Constanza closed to all ships coming from Indian ports unless they have been quarantined at an Ottoman port. In such cases vessels granted free pratique at Constanza after a satisfactory medical inspection. All other arrivals from Indian ports to be subjected to sanitary precautions at Sulina. Importation of dirty body and bed linen, old clothes and personal effects as merchandise prohibited. Travellers' dirty linen and used sacks admitted after disinfection.</p>
January 28th, 1897.	<p>Importation from India of old newspapers and similar printed matters prohibited.</p>
February 24th, 1897.	<p>Importation of all animal products from India prohibited.</p>
March 19th, 1897.	<p>Sacks from India transhipped at British ports allowed to enter Sulina and Constanza after disinfection.</p>
April 8th, 1897.	<p>New jute bags packed in bales by hydraulic pressure coming from non-infected districts in India admitted without disinfection.</p> <p>(17) BULGARIA.</p>
February 24th, 1897.	<p>Importation of all merchandise from India forbidden. All Bulgarian Black Sea ports closed against infected vessels and against all vessels from India unless previously disinfected at an Ottoman port. Varna and Bourgos open in certain cases after satisfactory medical inspection. Change of ships <i>en route</i> from infected port does not secure more favourable treatment.</p>

Date of Regulation.	Farport of Regulation.
March 9th, 1897.	All Bulgarian Black Sea ports unconditionally closed against Rangoon.
March 26th, 1897.	Importation from infected countries of used and soiled paper, newspaper, and printed papers used as wrappings prohibited.
April 12th, 1897.	Rice admitted from Rangoon.
May 18th, 1897.	Rangoon considered a clean port and direct importation of rice allowed. Jute sacks from Calcutta admitted after disinfection.
(18) GREECE.	
March 12th, 1897.	Importation of the following articles prohibited :— Postal packets, patterns, hides, wool, bristles, animals and their products, rags, old clothes, etc.
(19) TURKEY.	
October 13th, 1896.	Ten days' quarantine imposed on arrivals from Bombay.
January 2nd, 1897.	Ten days' quarantine and rigorous disinfection imposed on arrivals from Karachi.
Infected ships repulsed.	
February 10th, 1897.	Fifteen days' quarantine imposed on arrivals from India. Repulse of infected ships maintained. Should plague occur during the detention of the vessel, twenty days' quarantine imposed from the occurrence of the last case, and rigorous disinfection of clothing and personal effects. The vessel to be disinfected and the drinking-water changed. The bilge-water to be pumped out after being disinfected. Vessels objecting to the precautionary measures permitted to return from the port.
March 8th, 1897.	Importation of the following articles from India prohibited: Feathers, raw hides (salted and dried), furs, felts, hoofs, horns, bones, and all animal products.

Date of Regulation.	Purport of Regulation.
March 9th, 1897.	Ships from India prohibited from passing the Dardanelles unless previously detained for fifteen days in an Ottoman or other quarantine station.
March 22nd, 1897.	Susceptible goods, including jute sacking, from Indian ports to be disinfected, unless already admitted to free pratique at a port of transhipment.
April 5th, 1897.	Restrictions regarding the passage of the Dardanelles withdrawn.
	ASIA.
	(20) TURKISH ARABIA.
December 6th, 1896.	Twenty-one days' quarantine imposed at Bussorah on arrival from Bombay.
February 11th, 1897.	Quarantine against arrivals from India raised from ten to fifteen days. If a case of plague occurs during the detention in the lazaret, the same measures prescribed as in the case of Turkish ports.
August 3rd, 1897.	Quarantine against arrivals from India reduced to ten days.
	(21) PERSIA.
October 16th, 1896.	Quarantine imposed against arrivals from Bombay.
February 12th, 1897.	Infected or suspected vessels absolutely excluded, but allowed to land mails. Five days' quarantine for passengers and cargo imposed at Bushire, and seven days at ports nearer India. All dangerous cargo on healthy ships prohibited.
March 5th, 1897.	Rezais, mattresses, blankets, skins, rags, cotton waste and secondhand clothing classed as suspicious.
July 8th, 1897.	Quarantine reduced to three days.
	(22) MUSCAT.
February 2nd, 1897.	Quarantine imposed against arrivals from Bombay and Karachi.

Date of Regulation.	Purport of Regulation.
March 3rd, 1897.	<p>Regulations imposed at Muscat. All arrivals from Indian ports placed in quarantine and medically inspected. Healthy vessels granted pratique and allowed to land cargo. Cargo to be discharged into lighters by the ship's crew. Landing of rags and cotton waste and other articles considered susceptible, prohibited. Vessels on which a case of plague has occurred not permitted to communicate with the shore except for the purpose of landing mails. In the event of pratique being given, passengers for Muscat landed under supervision and detained for nine days from the date of departure from the last infected port, or from the last case occurring in the lazaretto. Baggage of passengers disinfected on landing.</p>
Orders issued during the early period of the epidemic, but exact date unknown.	<p>(23) CEYLON.</p> <p>Fifteen days' quarantine imposed on arrivals from Western Indian ports, during which period discharge of passengers and cargo prohibited. Entry of dangerous articles forbidden.</p>
February 19th, 1897.	<p>Landing from vessels coming directly or indirectly from Karachi, Bombay and Goa of the following articles prohibited: Rags, used apparel, bedding, waste paper, and used gunny bags.</p>
July 23rd, 1897.	<p>Entry and transshipment prohibited of all goods classed as susceptible by the Venice Convention coming directly or indirectly from ports in the West Coast of India. Customs-officer to cause the destruction of interdicted goods imported from ports on the West Coast of India.</p> <p>Arrivals from ports on the West Coast of India to be subjected to quarantine for a period not exceeding ten days from the date of departure. Persons and goods not to be landed during the quarantine period.</p>

Date of Regulation.	Purport of Regulation.
April 28th, 1897.	<p>Doctor of the Colonial Government appointed to Tuticorin for the examination of emigrants and other persons desiring to sail from Tuticorin for Ceylon.</p> <p>(24) GOA.</p>
October 17th, 1896.	<p>Five days' quarantine imposed against arrivals from Bombay or the south.</p> <p>(25) SIAM.</p>
February 15th, 1897.	<p>Vessels from Bombay inspected at Paknam by Siamese authorities before proceeding to Bangkok.</p> <p>(26) NETHERLANDS INDIA.</p>
February 3rd, 1897.	<p>Ten days' quarantine imposed against arrivals from Bombay and Karachi.</p>
April 21st, 1897.	<p>Whole West Coast of India declared infected.</p>
May 6th, 1897.	<p>Nine days' quarantine imposed against arrivals from Bombay and Karachi since the date of departure or the last case on board. Entry of butter, victuals, rags, raw wool, hair, hides, furriery from Bombay and Karachi temporarily forbidden.</p> <p>AFRICA.</p> <p>(27) EGYPT.</p>
October 12th, 1896.	<p>The plague regulations of 1894 put into force by the Sanitary Board, with a modification with respect to healthy vessels. The 1894 Regulations follow the Venice Sanitary Convention of 1892, but are more stringent in the treatment of infected ships.</p> <p>The regulations deal with (a) vessels passing through the Suez Canal and (b) vessels bound for Egyptian ports. They are based on the threefold classification of ships into healthy, suspected and infected.</p> <p>Healthy vessels are those which have left an infected port for seven days or more and have had no</p>

Date of Regulation.	Purport of Regulation.
	<p>case of plague on board; suspected vessels are those on which, though cases of plague have occurred, no fresh case has occurred within nine days; and infected vessels are those on which plague has been present within nine days of arrival.</p> <p>With regard to the passage of the Canal Healthy vessels are allowed to pass through the Canal. Suspected vessels carrying a doctor and a disinfecting stove are allowed to pass through the Canal in quarantine. Suspected vessels without a doctor and disinfecting stove are detained at Moses' Wells for the period required for disinfection and for ascertaining the condition of the ship's health. Unlike the Venice Convention the regulations dealing with infected vessels make no distinction between vessels which do and which do not carry a doctor and a disinfecting stove. The vessel is detained at the sanitary station. The sick are landed and detained in hospital. The healthy are landed and detained under observation for a period not exceeding seven days from the last case. The baggage, the vessel and susceptible articles in the cargo are disinfected.</p> <p>With regard to vessels bound for Egyptian ports. Free pratique is granted to healthy vessels after satisfactory medical inspection, disinfection of dirty linen, etc., and change of water. Suspected vessels on which a case has occurred within fourteen days are detained forty-eight hours at the sanitary station, and the ship, baggage and susceptible articles in the cargo are disinfected. Free pratique is then granted. Before free pratique is granted to the passengers they are also detained forty-eight hours on shore and their personal belongings are disinfected.</p>
February 3rd, 1897.	<p>Importation of the articles named in the subjoined list prohibited from vessels which have touched at an infected port:</p> <p>Rags, carpets, embroideries, body linen, personal effects, used garments and bedding (when not carried as baggage), animal products (including horse-hair and raw wool), claws, hoofs, sacking, plants, roots and fresh and dried fruit.</p>

Date of Regulation.	Purport of Regulation.
February 4th, 1897.	<p>Inspection of vessels from infected ports prohibited at night.</p> <p>Ships from an infected port passing the Canal in quarantine not allowed to coal at Port Said during the night.</p> <p>Regulations based on the Venice Convention of 1897 issued by the Egyptian Quarantine Board. These regulations reproduce the portions of the Venice Convention which deal with (1) the measures to be taken in the Red Sea, (2) the passage of the Canal in quarantine, and (3) the treatment of vessels arriving in Egypt from a plague-infected port in the Mediterranean. The regulations for suspected vessels prescribe, in addition to the measures expressly laid down by the Convention, the disinfection of the ship, baggage, etc., and susceptible merchandise before free pratique is granted in Egypt.</p> <p>The passage of the Canal in quarantine to be arranged so that the vessel arrives at Port Said during the day.</p>
February 2nd, 1897.	<p>(28) MOROCCO.</p> <p>Vessels from British India not admitted.</p> <p>(29) TUNIS.</p>
February 11th, 1897.	<p>Importation of the following articles from infected Indian ports prohibited: Rags, clothes, bedding, raw leather and hides, animal refuse, etc.</p> <p>(30) ZANZIBAR.</p>
January 16th, 1897.	<p>Steamers and native craft examined on arrival. Healthy vessels granted free pratique. Arrangements for the quarantine on shore of persons from infected ships.</p> <p>(31) MADAGASCAR.</p>
March 25th, 1897.	<p>All ships coming from infected Indian ports repulsed.</p>

Date of Regulation.	Purport of Regulation.
(32) RÉUNION.	
March 25th, 1897.	Rice and grain in bags from Bombay must be transferred on arrival to fresh uninfected bags. No susceptible articles admitted.
May 19th, 1897.	All Indian ports declared infected. Rice ships repulsed.
(33) NATAL.	
December 18th, 1897.	Bombay declared infected.
December 30th, 1897.	Twelve days' quarantine imposed on arrivals from Bombay.
AMERICA.	
(34) UNITED STATES.	
January 20th, 1897.	Treasury Quarantine Cholera Regulations applied to plague with fifteen days' detention of exposed persons.
(35) BRAZIL.	
March 8th, 1897.	All Indian ports and Burma declared infected; ships proceed to lazaretto at Ilha-Grande.
(36) PERU.	
March 24th, 1897.	All arrivals from healthy Indian ports with clean bill-of-health admitted to free pratique. Ten days' quarantine on arrivals from infected ports, but cargo from infected ports cannot be discharged. No relaxations in the rules allowed in the case of vessels previously calling at other ports.
(37) FRENCH GUIANA.	
April 6th, 1897.	Rags, green hides, carpets, personal effects and bedding, used or unused, from Indian ports only admitted through the quarantine ports and after disinfection.

**General Regulations of the Local Government Board No. 2.
of the United Kingdom as to Cholera, Yellow
Fever, and Plague.**

To all port Sanitary authorities;

To all other Sanitary authorities as herein defined;

To the Queen's Harbour masters of dockyard ports;

To all officers of Customs;

To all medical officers of health of the Sanitary authorities
aforesaid;

To all masters of ships;

To all pilots;

And to all others whom it may concern.

Whereas we, the Local Government Board, are empowered by section 130 of "The Public Health Act, 1875," as amended by "The Public Health Act, 1896," from time to time to make, alter, and revoke such Regulations as to us may seem fit, with a view to the treatment of persons affected with cholera or any other epidemic, endemic, or infectious disease, and preventing the spread of cholera and such other diseases, as well on the seas, rivers and waters of the United Kingdom, and on the high seas within 3 miles of the coasts thereof, as on land; and may provide for the enforcement and execution of such Regulations;

And whereas by section 1 of "The Public Health Act, 1896," it is enacted that Regulations of the Local Government Board made in pursuance of section 140 of "The Public Health Act, 1875," or in pursuance of that section, as extended to London by "The Public Health (London) Act, 1891," may provide for such Regulations being enforced and executed by the officers of Customs and the officers and men employed in the coastguard, as well as by other authorities and officers, and without prejudice to the generality of the powers conferred by those sections may provide for—

- (a) the signals to be hoisted by vessels having any case of epidemic, endemic, or infectious disease on board; and
- (b) the questions to be answered by masters, pilots, and other persons on board any vessel as to cases of such disease on board during the voyage or on the arrival of the vessel; and
- (c) the detention of vessels and of persons on board vessels; and
- (d) the duties to be performed in cases of such disease by masters, pilots, and other persons on board vessels:

Provided that the Regulations shall be subject to the consent—

- (a) so far as they apply to the officers of Customs, of the Commissioners of Her Majesty's Customs; and
- (b) so far as they apply to officers or men employed in the coastguard of the Admiralty; and
- (c) so far as they apply to signals, of the Board of Trade.

And whereas by certain Orders, dated respectively the 28th day of August, 1890, and the 6th day of September, 1892, we made Regulations with a view to the treatment of persons affected with cholera, and for preventing the spread of the disease, and it is expedient that such Orders should be revoked, and that Regulations should be made as hereinafter mentioned, to which the Commissioners of Her Majesty's Customs and the Board of Trade have respectively signified their consent so far as such Regulations respectively apply to the Officers of Customs and to signals:

Now, therefore, we, the Local Government Board, do hereby revoke the aforesaid Orders, except in so far as they may apply to any proceedings now pending, and we do, by this our Order, and in exercise of the powers conferred on us by "The Public Health Act, 1875," "The Public Health (London) Act, 1891," and "The Public Health Act, 1896," and every other power enabling us in that behalf, make the following Regulations, and declare that they shall be enforced and executed by the authorities and officers hereinafter mentioned:—

PART I.

Art. 1.—In this Order—

The term "ship" includes vessel or boat.

The term "Officer of Customs" includes any person acting under the authority of the Commissioners of Her Majesty's Customs.

The term "master," used in relation to a ship, includes the officer, pilot, or other person for the time being in charge or command of the ship.

The term "cholera" includes choleraic diarrhœa.

The term "Sanitary authority" means every port Sanitary authority, and every Council of a county, borough, and every urban or rural District Council whose district includes or abuts on any part of a Customs port, which part is not within the jurisdiction of a port Sanitary authority.

The term "Local authority" means any Council of a county borough, or any urban or rural District Council, and in the

administrative County of London any Sanitary authority as defined by "The Public Health (London) Act, 1891."

The term "Medical Officer of Health" includes any duly-qualified medical practitioner appointed or employed by a sanitary authority to act in the execution of this Order.

The term "infected" means infected with cholera, yellow fever, or plague: Provided that every ship shall be deemed infected in which there is or has been during the voyage, or during the stay of such ship in the port of departure or in a port in the course of such voyage, any case of cholera, yellow fever, or plague.

PART II.

Art. 2.—(1) The Officer of Customs who, on the arrival of any ship from foreign, shall visit the ship shall ascertain, so far as possible, whether such ship is infected, and if he have any reason to suspect that the ship is infected, or has come from any infected place, shall require the master of the ship, or the surgeon, if the ship carries a surgeon, to give (in writing under his hand and in the form hereunto appended, or in a form to the like effect) a true answer to the following question:—

Question.—Has any case or suspected case of—

Cholera,
Yellow fever, or
Plague

occurred in the ship _____, of which you are
_____, during the voyage from _____, or during the
stay of the ship in that port or in any other port in the course of
the voyage?

Answer.—_____ cases or suspected cases of
occurred on board the _____ during the voyage from
[or during the stay of the ship in the port of
_____].

or

No case or suspected case of cholera, yellow fever, or plague
occurred on board the _____ during the voyage from
_____, or during the stay of the ship in that port or in
any other port in the course of the voyage.

(Signed)

Master [or Surgeon] of the.....

(2) The Officer of Customs who, on the arrival of any ship from foreign, shall visit such ship shall, if he find, or have reason to suspect, that the ship is infected, detain such ship, and order the master forthwith to moor or anchor the same in such position as such Officer

of Customs shall direct; and thereupon the master shall forthwith moor or anchor the ship accordingly.

Art. 3.—Whilst such ship shall be so detained, no person (other than an Officer of Customs or a person acting in the execution of this Order) shall leave the same.

Art. 4.—The Officer of Customs detaining any ship as aforesaid shall forthwith give notice thereof, and of the cause of such detention to the Sanitary authority of the place where such ship is lying.

Art. 5.—Such detention by the Officer of Customs shall cease as soon as the ship shall have been duly visited and examined by the Medical Officer of Health; or, if the ship shall, upon such examination, be found to be infected, as soon as the same shall be moored or anchored in pursuance of Article 10.

Provided that, if the examination be not commenced within twelve hours after the ship shall have been moored or anchored in pursuance of subdivision 2 of Article 2, the ship shall, on the expiration of the said twelve hours, be released from detention.

Art. 6.—Every port Sanitary authority and every other Sanitary authority within whose district persons are likely to be landed from ships coming foreign shall, with the approval of the Chief Officer of Customs of the port, fix some place where any ship may be moored or anchored for the purpose of Article 10, and shall make provision for the reception of patients and persons suffering from cholera, yellow fever, and plague, and removed under articles 13 and 14. The place to be fixed as aforesaid, where any ship may be moored or anchored for the purpose of Article 10, shall be some place within the jurisdiction or district of the Sanitary authority, unless we otherwise consent; in which case the place so fixed shall, for the purposes of this Order, be deemed to be within such jurisdiction or district:

Provided that, in the case of any dockyard port for which a Queen's Harbourmaster has been appointed, the place where any ship shall be moored or anchored for the purpose of Article 10 shall from time to time be fixed by the port Sanitary authority with the approval of the Queen's Harbourmaster, instead of with that of the Chief Officer of Customs of the port:

Provided also, that where, in pursuance of the above cited Order of the 28th day of August, 1890, or of any Order by the said Order revoked, places have been fixed for the mooring, or anchoring of ships for the purposes of the Regulations by this Order revoked, such places shall be deemed to have been so fixed in pursuance of and for the purposes of this Order.

Art. 7. The Sanitary authority, on notice being given to them by an Officer of Customs under Article 4, shall forthwith cause the ship in

regard to which such notice shall have been given, to be visited and examined by their Medical Officer of Health for the purpose of ascertaining whether such ship is infected.

Art. 8. The Medical Officer of Health, if he have reason to suspect that any ship coming or being within the jurisdiction or district of the Sanitary authority, whether examined by the Officer of Customs or not, is infected, shall, or, if he have reason to suspect that the ship has come from an infected place, may visit and examine such ship for the purpose of ascertaining whether such ship is infected, and may make the like visit and examination in the case of any ship coming or being within the jurisdiction of the Sanitary authority which has come from an infected place. The master of any such ship shall permit the same to be so visited and examined.

The master of any such ship shall also, on being required so to do by the Medical Officer of Health, cause the ship to be brought-to, and, if necessary, moored or anchored, in some convenient place while the same shall be visited and examined; but due regard shall be had to the safety of the ship and to the convenience of navigation.

Art. 9. If the Medical Officer of Health, on making such examination as aforesaid (whether under Article 7 or under Article 8), shall be of opinion that the ship is infected, he shall forthwith give a certificate in duplicate in the following form, or to the like effect, and shall deliver one copy to the master and retain the other copy or transmit it to the Sanitary authority. He shall also give to us information as to the arrival of the ship, and such other particulars as we may require.

Certificate.

.....day of....., 189...

.....District [or Town] Council.

or

.....Port Sanitary authority.

I hereby certify that I have examined the ship , of
 , now lying in the port of [or detained
 at], and that I find that such ship is infected with
 [cholera, or yellow fever, or plague].

(Signed)

*Medical Officer of Health [or Medical Practitioner appointed
 or employed by the Sanitary authority].*

Art. 10. The master of any ship so certified to be infected shall thereupon moor or anchor such ship at the place fixed for that purpose:

under Article 6, and such ship shall remain there until the requirements of this Order have been duly fulfilled.

Art. 11. No person (other than an Officer of Customs or a person acting in the execution of this Order) shall leave any such ship until the examination hereinafter mentioned shall have been made.

Art. 12. The Medical Officer of Health shall, as soon as possible after any such ship has been certified to be infected, examine every person on board the same, and in the case of any person suffering from cholera, yellow fever, or plague, or from any illness which the Medical Officer suspects may prove to be cholera, yellow fever, or plague, shall certify accordingly.

Art. 13. Every person certified by the Medical Officer of Health to be suffering from cholera, yellow fever, or plague, shall be removed if his condition admit of it, to some hospital or other suitable place appointed for that purpose by the Sanitary authority; and no person so removed shall leave such hospital or place until the Medical Officer of Health shall have certified that such person is free from the said disease.

If any person so certified to be suffering from cholera, yellow fever, or plague cannot be removed, the ship shall remain subject, for the purposes of this Order, to the control of the Medical Officer of Health; and such person shall not be removed from or leave the ship, except with the consent, in writing, of the Medical Officer of Health.

Art. 14. Any person certified by the Medical Officer of Health to be suffering from any illness which such officer suspects may prove to be cholera, yellow fever, or plague, may either be detained on board the ship for any period not exceeding two days, or be taken to some hospital or other suitable place appointed for that purpose by the Sanitary authority, and detained there, for a like period, in order that it may be ascertained whether the illness is or is not cholera, yellow fever, or plague.

If any such person, while so detained, shall be certified by the Medical Officer of Health to be suffering from cholera, yellow fever, or plague, the provisions of Article 13 shall apply.

Art. 15. No person on board such a ship as is mentioned in Article 12 who has not been certified as required by that Article shall be permitted to land unless he satisfy the Medical Officer as to his name, intended place of destination, and intended address at such place.

Such name, intended place of destination, and address shall forthwith be given by the Medical Officer of Health to the clerk to the

Sanitary authority, and such clerk shall thereupon transmit the same to the local authority of the district in which such intended place of destination is situate.

Every such person who, within forty-eight hours after landing, shall arrive at any place of destination or address other than such place or address as aforesaid, shall forthwith upon such arrival notify, in writing, his place of destination and address to the Medical Officer of Health of the Sanitary authority, or to the Local authority, of the district in which such place is situate.

Art. 16. The Medical Officer of Health shall, in the case of every ship certified to be infected, give directions, and take such steps as may appear to him to be necessary, for preventing the spread of infection, and the master of the said ship shall forthwith carry into execution such directions as shall be so given to him.

Art. 17. In the event of any death from cholera, yellow fever, or plague taking place on board such ship while detained under Article 10, the master shall, as directed by the Sanitary authority or the Medical Officer of Health, either cause the dead body to be taken out to sea, and committed to the deep, properly loaded to prevent its rising, or shall deliver it into the charge of the said authority, who shall thereupon cause the same to be otherwise lawfully and properly disposed of.

Art. 18. The master shall cause the clothing and bedding and other articles of personal use likely to retain infection which have been used by any person who may have suffered from cholera, yellow fever, or plague on board such ship, or who, having left such ship, shall have suffered from cholera, yellow fever, or plague during the stay of such ship in any port, to be disinfected or destroyed; and if the master shall have neglected to do so before the ship arrives in port, he shall forthwith, upon the direction of the Sanitary authority or the Medical Officer of Health, cause the same to be disinfected or destroyed, as the case may require; and if the said master neglect to comply with such direction within a reasonable time, the Sanitary authority shall cause the same to be carried into execution.

Art. 19. The master shall cause the ship to be disinfected, and every article therein, other than those last described, which may probably be infected, to be disinfected, or destroyed, according to the directions of the Medical Officer of Health.

Art. 20. Where a ship is not ascertained, or certified to be infected, but has passengers on board who are in a filthy or otherwise unwholesome condition, or has come from a place infected with cholera, yellow fever, or plague, the Medical Officer of Health may

if, in his opinion, it is desirable with a view to checking the introduction or spread of cholera, yellow fever, or plague, give a certificate in duplicate in the following form, or to the like effect, and shall deliver one to the master, and retain the other or transmit it to the Sanitary authorities.—

Certificate.

.....day of....., 189 ..

.....District [or Town] Council,

or

.....Port Sanitary authority.

I hereby certify that I have examined the ship
from , now in the port of
, and that such ship has passengers on board in a filthy or
otherwise unwholesome condition [or has come from an infected
place], and that, in my opinion, it is desirable, with a view to check-
ing the introduction or spread of cholera, yellow fever, or plague,
that the persons on board such ship should not be allowed to land
unless they satisfy me as to their names, places of destination, and
addresses at such places.

(Signed)

*Medical Officer of Health (or Medical Practitioner
appointed or employed by the Sanitary authority).*

Art. 21. When such certificate has been given, no person on board the ship shall leave or be allowed to leave the same unless he satisfy the Medical Officer of Health as to his name, intended place of destination, and intended address at such place, and such name, intended place of destination, and address shall forthwith be given by the Medical Officer of Health to the clerk to the Sanitary authority, and such clerk shall thereupon transmit the same to the local authority of the district in which such intended place of destination is situate. Every such person who, within forty-eight hours after landing, shall arrive at any place of destination or address other than such place or address as aforesaid shall, forthwith upon such arrival, notify, in writing, his place of destination and address to the Medical Officer of Health of the Sanitary authority, or to the local authority of the district in which such place is situate.

Art. 22. If the Medical Officer of Health have reason to believe that any ship coming or being within the jurisdiction of the Sanitary authority is infected, or has come from an infected place, he may direct all bilge-water and water ballast to be pumped out in some suitable place before such ship enters any dock or basin :

Provided that, in every case where there may be reasonable cause to apprehend that the ship may be endangered by the removal of the water ballast, the Medical Officer of Health may cause any tank or other receptacle containing the water ballast to be sealed, and thenceforward, so long as the ship remains within the jurisdiction of the Sanitary authority, no person shall, without the permission of the Medical Officer of Health, break or remove such seal, or discharge or remove from such tank or receptacle any part of the water ballast.

On the Sanitary authority providing a proper supply of water for drinking and cooking purposes for persons on board any such ship, the Medical Officer of Health may direct all casks or tanks on board the ship containing water for the use of such persons to be emptied and cleansed, and the master shall cause the said direction to be carried into effect.

Art. 23 The master of any ship, or any other person, shall answer truly all such questions put to him by, and give all such information to, any Officer of Customs or Medical Officer of Health as may be necessary for any purpose of his order; and no person who is required in pursuance of this order to give to the Medical Officer of Health, or to notify to any local authority, the name and intended place of destination and address of such person shall knowingly give or notify a false or fictitious name, place of destination, or address, or refuse to give or notify as aforesaid the true name, intended place of destination, and address of such person.

Art. 24. The Sanitary authority may appoint one or more legally qualified medical practitioners to act in the execution of this Order, either in place of, or as an assistant or assistants to, the Medical Officer of Health, and may pay such practitioner or practitioners reasonable remuneration for his or their services.

PART IV.

Art. 25. The master of every ship infected with cholera, yellow fever, or plague shall, when within 3 miles of the coast of any part of England or Wales, cause to be hoisted at the masthead, or where best seen, a large flag of yellow and black, borne quarterly, and shall keep the same displayed during the whole of the time between sunrise and sunset, and no person (other than an Officer of Customs or a person acting in the execution of this Order) shall leave such ship until after such visit of the Officer of Customs as is mentioned in Article 2, or until after the visit of the Medical Officer of Health

PART V.

Art. 26. Nothing in this Order shall render liable to detention, disinfection, or destruction any article forming part of any mail (other than a parcel mail) conveyed under the authority of the Postmaster-General, or of the Postal Administration of any foreign Government, or shall prejudicially affect the delivery in due course of any such mail (other than a parcel mail) to the Post Office in accordance with the provisions of the Post Office Acts.

Given under the seal of office of the Local Government Board, this 9th day of November, in the year 1896.

(L.S.) (Signed) HENRY CHAPLIN, *President*.

(Signed) HUGH OWEN, *Secretary*.

Notice.—"The Public Health Act, 1896," provides by sub-section (3) of section 1 that if any person willfully neglects or refuses to obey or carry out, or obstructs the execution of, any Regulation made under section 130 of "The Public Health Act, 1875," or in pursuance of that section as extended to London by "The Public Health (London) Act, 1891," and as amended by "The Public Health Act, 1896," he shall be liable to a penalty not exceeding 100*l.*, and in the case of a continuing offence to a further penalty not exceeding 50*l.* for every day during which the offence continues.

No. 3. Regulations of the French Government based on the Venice Convention.

Le Président de la République française.

Sur le rapport des ministres de l'intérieur et des finances.

Vu l'article 1^{er}, de la loi du 3 Mars, 1822, sur la police sanitaire.

Vu le décret du 9 Mars, 1897, relatif aux provenances des pays contaminés de peste.

Vu les délibérations du comité consultatif d'hygiène publique de France, des 27 Février et 5 Avril, 1897.

Vu le règlement sanitaire général annexé à la convention sanitaire de Venise du 19 Mars, 1897 (chap. 2, titre IV), relatif aux marchandises ou objets susceptibles d'être prohibés à l'importation.

Décète:

Art. 1^{er}. Est interdite jusqu'à nouvel ordre l'importation en France et en Algérie des drilles, des chiffons, des débris frais d'animaux, des onglons, des sabots venant directement ou indirectement de toute localité où la peste aura été constatée.

Art. 2. Est également interdit le transit à travers la France ou l'Algérie des objets désignés à l'article 1^r, toutes les fois que ce transit donne lieu à un débarquement ou à une manipulation quelconque.

Art. 3. Seront admis après désinfection les laines brutes ou manufacturées venant directement de toute localité contaminée de peste, les linges de corps ayant servi ou n'ayant pas servi, les hardes ou vêtements ayant servi ou n'ayant pas servi, les objets de literie ayant servi ou n'ayant pas servi, les cuirs verts et peaux fraîches venant directement ou indirectement de toute localité où la peste a été constatée.

Art. 4. Aucun navire provenant d'une localité reconnue contaminée de peste ou portant des objets énumérés à l'article 3 ne pourra pénétrer en France ou en Algérie que par un des ports suivants : Marseille, Alger, Pauillac, Saint-Nazaire, le Havre et Dunkerque.

Art. 5. Tout colis contenant quelqu'un des objets visés aux articles 1 et 3 du présent décret et provenant d'un des ports de l'Océan Indien autre que ceux reconnus contaminés de peste, depuis Mascate, y compris les ports du golfe Persique, jus'qu'au cap Comorin, doit être accompagné d'un certificat d'origine visé par un agent consulaire français.

Art. 6. Est rapporté le décret du 6 Mars, 1897, susvisé.

Art. 7. Le ministre de l'intérieur et le ministre des finances sont chargés, chacun en ce qui le concerne, de l'exécution du présent décret, qui sera publié au Journal Officiel et inséré au Bulletin des lois.

Fait à Paris, le 15 Avril, 1897.

Regulations of the Italian Government based on the Venice Convention.

Maritime Sanitary Notice No. 3, dated the 8th May, 1897.

No. 4.

The Minister of the Interior :

Seen the Law for the protection of public hygiene and health (sections 49 and 50) and the Maritime Sanitary notices of December 29th, 1896, No. 4, and January 14th, 1897, No. 1.

Seen the International Sanitary Convention concluded at Venice on the 18th March 1897 ;

Whereas it is deemed expedient to place the proposals made at the said Conference in harmony with the sanitary measures intended to prevent the importation of plague into the Kingdom.

Having heard the Superior Board of Health ; hereby decrees ;

Section 1.—All vessels coming from ports infected with plague or belonging to local areas containing plague-stricken places, before being admitted to free pratique in the Kingdom, must undergo a medical inspection of the persons on board and disinfection of their soiled wearing apparel or other effects. The bilge-water will be pumped out after disinfection and good drinking-water substituted for the water stored on board.

The following rules must also be observed :

1st.—Vessels provided with a Medical Officer and with a disinfecting apparatus will be admitted to free pratique, provided such Medical Officer will declare upon oath :

- (a) that no wearing apparel or other domestic effects or luggage were received on board without having been previously disinfected, or that the said articles were properly disinfected on board ;
- (b) that neither at the time of sailing, nor during the voyage, did any actual or suspected cases of plague occur on board.

2nd.—Vessels having on board a Medical Officer, but not provided with a disinfecting apparatus, will be admitted to free pratique, provided it is substantiated by a sworn declaration of the Medical Officer :

- (a) that no wearing apparel or other effects, nor luggage were shipped without previous disinfection ;
- (b) that neither at the time of sailing, nor during the voyage, did any actual or suspected cases of the disease occur on board.

3rd.—Vessels which are not provided with a Medical Officer, nor with a disinfecting apparatus, but which were free from disease during the voyage, will be admitted to free pratique after having gone through the treatment set forth in the first paragraph of this section, as well as after having undergone all such other precautionary measures as the Sanitary authorities may deem expedient to order, in special cases, as to make sure of the healthy condition of the vessel.

Section 2.—Vessels on which either at the time of sailing or during the voyage, actual or suspected cases of plague have occurred, can be admitted to free pratique subsequent to the carrying out of all the measures set forth in section 1, paragraph 1, and provided the following conditions are observed :

1st.—In the case of vessels having a Medical Officer and a disinfecting apparatus, free pratique will be granted if such Medical Officer will declare on oath that at least 12 days

have elapsed since the death or complete recovery of any stricken person on board ; and that the effects and articles belonging to the person so stricken, the persons who attended upon them, and the cabins in which the sick persons were laid up, have been disinfected.

2nd.—In the case of vessels which are provided with a Medical Officer, but not with a disinfecting apparatus, they will be admitted to free pratique provided such Medical Officer will, upon oath, declare that 14 days at least have elapsed from the date of death or complete recovery of the stricken persons, and that the chemical disinfections mentioned in the preceding paragraph have been carried out.

3rd.—In the case of vessels not provided with a Medical Officer nor with a disinfecting apparatus, but which may have had on board suspected or actual cases of plague, even before 14 days, they will not be admitted to free pratique till after they have been ordered off to a quarantine station and kept there for such period of time as may be deemed necessary for their disinfections, and to make sure that they have been restored to a healthy condition.

Section 3.—Vessels which at the time of their arrival have on board ascertained or suspected cases of plague, or which may have had such cases since less than 12 days, will, none excepted, be ordered off to a quarantine station, where they will undergo such treatment as will in each case be prescribed by the Minister of the Interior.

Section 4.—The importation, either direct or indirect, of the following goods from plague-stricken places is forbidden :

- (a) worn wearing apparel or other domestic effects carried as wholesale merchandise ;
- (b) rags, even if compressed by hydraulic power and carried as bale merchandise ;
- (c) raw, fresh, or dry hides ;
- (d) animal refuse, nails, hoofs, bristle, hair, raw wool ;
- (e) hair.

The prohibition mentioned in this section will be extended to goods of a similar description, although originating from other countries in all cases when their transport was effected on vessels which may have shipped susceptible articles at infected ports, excepting in cases when such goods shall have been placed in special holds apart from the goods, importation whereof is forbidden.

Section 5.—All goods specified in section 4, originating from a healthy port belonging to a country in which there are plague-stricken districts, must be accompanied by a medical certificate and a

certificate of origin issued by the competent local authorities and visaed by the Italian Consul or Consular Agent within whose jurisdiction the place of shipment is situated.

Section 6.—The medical inspection of ships must take place during the day-time.

Section 7.—The Sanitary measures set forth in the present notice will be applied at the first port of call, excepting in special cases. All the subsequent ports of call, provided nothing abnormal occurs during the voyage after the first port of call, the Sanitary measures will be limited to a general medical inspection of all persons on board and to the disinfection of the effects intended to be landed.

For the present vessels ordered to proceed to a quarantine station will all be sent to the Asinara station; but should opportunity arise, another station will be appointed.

Section 8.—Notices, dated 29th December 1896, No. 4, and 14th January 1897, No. 1, are cancelled.

The prefects of the Maritime Provinces and the Harbour authorities are directed to carry out the objects of the present notice.

No. 5.

Maritime Sanitary Ordinance No. 5, dated the 20th June, 1897.

For the purpose of affording shipping and trade all the facilities consistent with the requirements of the Sanitary service and particularly for the purpose of avoiding delays in granting free pratique to steamers which, though free from disease, have to undergo medical inspection and disinfection for the sole reason of their coming from a place infected by plague.

Seen the Law of 22nd December 1888, No. 5849 (3rd series), for the protection of hygiene and public health.

The Minister of the Interior decrees:

In cases when the owners or masters of steamers coming from Indian ports specified in the Maritime Sanitary Ordinance of the 1st May last, and bound for Italy, make a formal application to that effect, a doctor, to be appointed in each case by this Ministry, can be embarked on such steamers at Port Said.

Section 2.—The said doctor will be entrusted with the general sanitary surveillance on board the ship during the crossing from Port Said to the Italian ports of destination, and within 24 hours preceding the arrival of the steamer in an Italian port, he is to ascertain that the disinfection of the soiled articles of wearing or domestic apparel has been carried out, and will proceed to a medical examination of all persons on board.

Section 3.—It will besides be the doctor's duty to lodge with the Harbour authorities on arrival of the steamer, a written declaration showing the hygiene and sanitary conditions on board, and suggesting the treatment to be adopted.

Should everything prove to be in good order, the steamer will, as far as the sanitary formalities are concerned, be admitted to free pratique. Should, however, any abnormal circumstances have been detected, the steamer will, in that case, have to undergo all those measures which are in respect of the various cases set forth in the Sanitary Maritime Ordinances now in force.

Section 4.—The above-mentioned doctor will be entitled to passage and first class fare on board, free of charge, and his fee, which, in each case, shall be fixed with the approval of this Ministry, will be defrayed by the masters of the steamers.

Section 5.—The dispositions of Sanitary Maritime Ordinance of 8th May last, No. 3, remain unchanged in their substance, as the present Ordinance is meant only to modify the formalities regarding the carrying out of the medical inspection and of the disinfections of such steamers as were constantly in a normal condition from the time of their departure to that of arrival.

The prefects of the Maritime Provinces and the Harbour authorities of the Kingdom are charged with the execution of the present Ordinance.

Regulations of the Belgian Government based on the Venice Convention.

Rapport au Roi.

Bruxelles, le 3 Avril, 1897. No. 6.

Sire,

En signant la Convention Sanitaire Internationale de Venise, du 19 Mars, 1897, la délégation Belge, suivant l'exemple d'autres pays, a déclaré que, vu l'urgente nécessité de se défendre contre l'invasion de la peste, le Gouvernement, pour autant que cela lui sera possible n'attendra pas l'expiration des délais de ratification, pour appliquer, en ce qui le concerne, les dispositions de la Convention.

C'est pour donner suite à cette déclaration que j'ai l'honneur de soumettre à votre Majesté le projet d'Arrêté ci-joint.

Les mesures actuellement en vigueur, dans le but de protéger le pays contre l'invasion de la maladie, ont été décrétées par l'Arrêté Royal du 8 Janvier, 1897, rendant applicables à la peste les dispositions de l'Arrêté Royal du 15 Juillet, 1895, relatif au choléra.

D'autres mesures ont été appliquées dans la suite par la Commission Sanitaire de l'Escaut, agissant à titre provisoire.

Le nouvel Arrêté ci-joint a pour objet de mettre cet Arrêté et ces mesures en harmonie avec les principes de la Convention.

La prophylaxie de la peste, telle qu'il l'organise, comprend les mesures sanitaires à prendre dans les ports et aux frontières de terre, à l'égard des voyageurs, des marchandises, et des bagages.

Les unes ont pour objet la visite médicale, l'isolement, et la désinfection des navires, des passagers et de l'équipage; les autres, les précautions à instituer quant aux voyageurs arrivant dans le pays par voie ferrée, aux voitures et wagons de chemin de fer.

La Convention n'impose pas la prohibition absolue des marchandises qui sont considérées comme suspects. Elle reconnaît la faculté de les soumettre à des défenses d'importation et de transit ou à la désinfection.

Usant de cette faculté je propose de prohiber les marchandises et objets suivants, sauf des dérogations, autorisées par décisions, motivées, et moyennant de prescrire des précautions spéciales d'emballage, de désinfection, ou autres :—

1. Les linges de corps, hardes et vêtements portés (effets à usage), les literies ayant servi, lorsque ces objets sont transportés comme marchandises;

2. Les chiffons et les drilles;

3. Les sacs usés; les vieux tapis; les broderies ayant servi;

4. Les cuirs verts et les peaux fraîches;

5. Les débris frais d'animaux, onglons, sabots, crins, poils, soies et laines brutes;

6. Les cheveux.

Cette défense d'importation et de transit est édictée d'une manière générale pour les objets, classés sous les Nos. 1 à 3, parce qu'à raison de leur nature, de l'usage qu'on en a fait ils ont pu être en contact avec des malades ou séjourner dans leur voisinage immédiat.

Les objets, rangés sous les Nos. 4 à 6, sont prohibés de même parce qu'ils proviennent de personnes (les cheveux) ou de certaines espèces d'animaux, tels que les rats, les souris, indubitablement sujets à contracter la peste et à la propager, les chiens, les moutons, les chèvres, les buffles, les bœufs, les porcs, que l'on suppose, sans en avoir toutefois la certitude, être susceptibles d'avoir également la maladie.

Des dispositions spéciales règlent ce qui a trait d'une part au transit des objets emballés de telle façon qu'ils ne puissent être manipulés en cours de route, d'autre part à l'importation et au transit de ceux qui n'ont pu être souillés pendant leur transport à travers une

circonscription contaminée ; elles s'occupent aussi de ce qui concerne les objets qui ont été expédiés d'une pareille circonscription avant le premier cas de peste.

Il est entendu qu'il ne s'agit ici que des objets transportés comme marchandises.

Quant aux bagages, qu'ils accompagnent ou non le voyageur, la désinfection sera obligatoire pour le linge sale, les hardes, vêtements, et objets qui font partie de bagages ou de mobiliers (effets d'installation) provenant d'une circonscription territoriale déclarée contaminée et que l'autorité sanitaire considérera comme contaminés.

Il convient de remarquer, qu'en dehors des prohibitions imposées, l'autorité sanitaire au port a le droit de soumettre à la désinfection tous les autres objets qu'elle rangerait dans cette catégorie ; ainsi, il est de nombreux petits objets, des échantillons, des bibelots que les matelots ou les passagers introduisent avec leurs bagages, et qu'ils revendent à l'arrivée du navire. Ces objets ne proviennent pas de grands ateliers où le danger de contamination n'existe guère, mais ont pu être achetés dans des habitations peut-être infectées.

Enfin, un Article du projet d'Arrêté donne au Ministre de l'Agriculture et des Travaux Publics le pouvoir de désigner les pays ou les parties de pays à l'égard desquels régime prévu sera rendu applicable et de régler la mise à exécution et la durée des mesures prescrites.

Je suis, &c.

Le Ministre de l'Agriculture et des Travaux Publics,

(Signé) Léon De Bruyn.

No. 7.

Léopold II, Roi des Belges, à tous présents et à venir, salut.

Vu le Décret Sanitaire du 18 Juillet, 1831, ainsi que les Règlements pris pour son exécution ;

Revu l'Arrêté Royal du 8 Janvier, 1897, rendant applicables à la peste les dispositions de notre Arrêté du 15 Juillet, 1895, relatif au choléra ;

Vu le texte, annexé au présent Arrêté, des Chapitres II, III, et IV du Règlement Général annexé à la Convention du 19 Mars, 1897, adoptée par la Conférence Sanitaire Internationale de Venise et relatif aux marchandises ou objets susceptibles, envisagés au point de vue des défenses d'importation ou de transit, ainsi qu'aux mesures à prendre aux frontières de terre et de mer, dans un but de protection contre l'invasion de la peste ;

Sur le rapport et la proposition de notre Ministre de l'Agriculture et des Travaux Publics ;

Nous avons arrêté et arrêtons :

Article 1^{er}. Sont interdits à l'entrée et au transit par les frontières de terre et de mer les marchandises et objets suivants venant de pays ou de circonscriptions territoriales déclarés contaminés de peste :—

1. Les linges de corps, hardes, et vêtements portés (effets à usage), les literies ayant servi, lorsque ces objets sont transportés comme marchandises ;

2. Les chiffons et les drilles ;

3. Les sacs usés ; les tapis vieux ; les broderies ayant servi ;

4. Les cuirs verts et les peaux fraîches ;

5. Les débris frais d'animaux, onglons, sabots, crins, poils, soies et laines brutes ;

6. Les cheveux.

Toutefois, des Arrêtés Ministériels pourront lever cette prohibition en ce qui concerne les laines brutes, les cuirs verts, les peaux fraîches, et certaines catégories de chiffons et de tapis, moyennant de prescrire des précautions spéciales d'emballage, désinfection, ou autres.

Art. 2. Le transit des marchandises et objets susceptibles, désignés à l'Article 1^{er} n'est pas interdit lorsqu'il est effectué sous la surveillance de la Douane, pourvu que ces objets soient emballés de telle façon qu'ils ne puissent être manipulés en cours de route.

Art. 3. L'importation et le transit des marchandises et objets visés à l'Article 1^{er} et provenant de pays ou de circonscriptions territoriales non contaminés peuvent être soumis à des justifications de provenances, à la satisfaction de l'Administration des Douanes.

Ils seront admis à l'importation et au transit, même lorsqu'ils ont traversé une circonscription contaminée, s'il est démontré à la dite Administration qu'ils n'ont pas été en contact avec des objets souillés pendant leur transport à travers cette circonscription.

Art. 4. Les marchandises et objets visés à l'Article 1^{er} ne tomberont pas sous l'application de mesures de prohibition à l'entrée, s'il est démontré à l'Administration des Douanes qu'ils ont été expédiés d'une région contaminée avant le premier cas de peste.

Art. 5. Notre Ministre de l'Agriculture et des Travaux Publics désignera les pays ou parties de pays à l'égard desquels le régime

prévu par les dispositions qui précèdent sera rendu applicable et réglera la mise à exécution et la durée des mesures prescrites.

Art. 6. Les mesures à prendre dans les ports à l'égard des navires considérés comme infectés, suspects, ou indemnes, au point de vue de la visite médicale, de l'isolement, et de la désinfection, seront conformes aux prescriptions du Règlement Général annexé à la Convention de Venise, prérappelée.

Notre Ministre de l'Agriculture et des Travaux Publics pourra appliquer aux frontières de terre et de mer les mesures jugées nécessaires, en ce qui concerne les voyageurs, les bagages, et les objets transportés à la suite d'un changement de domicile, dans les limites arrêtées par la dite Convention.

Art. 7. Sont abrogés l'Arrêté Royal susvisé du 8 Janvier. 1897, et toutes les mesures édictées par la Commission Sanitaire de l'Escaut qui sont contraires au présent Arrêté.

Art. 8. Notre Ministre de l'Agriculture et des Travaux Publics est chargé de l'exécution du présent Arrêté.

Donné à Bruxelles, le 5 Avril, 1897.

Le Ministre de l'Agriculture et des Travaux Publics.

No. 8.

Vu l'Arrêté Royal du 5 Avril, 1897, prescrivant des mesures sanitaires relativement à l'importation et au transit des marchandises provenant de pays ou de circonscriptions territoriales, déclarés contaminés de peste ;

Vu spécialement les Articles 5 et 6 de cet Arrêté, chargeant le Ministre de l'Agriculture et des Travaux Publics de désigner les pays ou parties de pays à l'égard desquels le régime prévu par les Articles 1^{er} à 4 du dit Arrêté sera rendu applicable et de régler les mesures à prendre dans les ports à l'égard de navires considérés comme infectés, suspects ou indemnés, au point de vue de la visite médicale, de l'isolement et de la désinfection ;

Vu l'avis de la commission sanitaire de l'Escaut ;

Arrêté :

Art. 1^{er} Les dispositions qui font l'objet des Articles 1^{er} à 4 de l'Arrêté royal du 5 Avril, 1897, susvisé, sont rendues applicables aux provenances de la présidence de Bombay, du Sind excepté de l'extrême Est de ce dernier, ainsi qu'à celles de l'Ile de Formose et des parties de l'Empire Chinois, situées au sud de 30° degré de latitude, contaminés par la peste.

Art. 2. Ces provenances, arrivant par voie de mer, seront soumises à la station sanitaire de l'Escaut et dans les ports d'Ostende et de Nieuport, au régime stipulé par les chapitres II, III et IV du règlement sanitaire général annexé à la Convention sanitaire internationale de Venise, en date du 19 Mars, 1897.

Art. 5. Les marchandises et objets visés à l'Article 1^{er} de l'Arrêté royal du 5 Avril, 1897, et provenant d'un des ports de l'océan Indien, autres que ceux reconnus contaminés de peste, depuis Mascate y compris les ports du golfe Persique, jusqu'au cap Comorin, doivent être accompagnés à l'importation et au transit, par application du 1^{er} alinéa de l'Article 3 de cet Arrêté, d'un certificate d'origine visé par un agent Consulaire belge et à défaut de pareil agent résidant au port d'expédition, d'un certificat d'origine visé par l'autorité locale de ce port.

Bruxelles, le 1^{er} Mai, 1897.

No. 9. Regulations of the Ceylon Government based on the Venice Convention.

Regulations made by the Governor, with the advice of the Executive Council, under the provisions of the Ordinance No. 3 of 1897 :—

1. The regulations made by the Governor, with the advice of Executive Council, bearing date the 13th and 26th March 1897, are hereby repealed.
2. The landing at any place ⁱⁿ this island of the following goods, shipped at any port on the West Coast of India or transhipped to any vessel from any vessel which shall have cooveyed such goods from any port on the West Coast of India, is prohibited :—
 - (1) Used body linen, clothes, bedding, and other personal effects.
 - (2) Rags, including rags compressed by hydraulic pressure and transported in bales as merchandise.
 - (3) Used sacking or bags, carpets, and old embroidery.
 - (4) Green and untanned hides and skins.
 - (5) Animal refuse, claws, hoofs, horsehair, hair of animals generally, raw silk, and wool.
 - (6) Human hair.
3. The transhipment within any port of Ceylon of such prohibited goods from one vessel to another is prohibited.

4. The Principal Officer of Customs at any place at which any landing or transshipment shall take place of such prohibited goods shall, unless the Governor shall otherwise direct, cause the destruction of such goods. The cost of effecting such destruction shall be paid by the owner and consignee of such goods and by the master of the vessel by which such goods were carried. No compensation for such destruction shall be paid to any person.
5. Any vessel having on board any such prohibited goods shall, so long as she shall have any such goods on board, be deemed in quarantine and such vessel and all persons and goods shall in respect of such vessel be subject to the regulations published on 2nd March 1897, relating to vessels in quarantine.

Colombo, July 23, 1897.

Regulations made by the Governor, with the advice of the Executive Council under the provisions of the Ordinance No. 3 of 1897 :—

No. 10.

1. The regulations made by the Governor, with the advice of the Executive Council, bearing date the 2nd March 1897 are hereby repealed.

2. Every vessel or boat coming to any place in this island from any place on the West Coast of India shall be subjected to quarantine for a period not exceeding ten days from the date of departure from such port.

3. No person shall within such period of ten days land at any place in this island from any such vessel or boat.

4. No person shall at any time within such period of ten days carry, take, or convey any goods from any such vessel or boat to any place in this island.

Colombo, July 23, 1897.

REGULATIONS OF THE EGYPTIAN SANITARY BOARD No. 11. BASED ON THE VENICE CONVENTION.

Voie Maritime: Mesures à prendre dans la Mer Rouge.

Article 1. *Navires Indemnes.*—(a) Les navires reconnus indemnes, après visite médicale, auront la libre pratique immédiate, quelle que soit la nature de leur patente.

Le navire devra, toutefois, avoir complété ou compléter dix jours pleins à partir du moment de son départ du dernier port contaminé.

Le seul régime que peut prescrire à leur sujet l'autorité du port d'arrivée consiste dans les mesures applicables aux navires suspects (visite médicale, désinfection du linge sale, évacuation de l'eau de cale et substitution d'une bonne eau potable à celle qui est emmagasinée à bord.

(b) Les navires indemnes ordinaires auront la faculté de passer le Canal de Suez en quarantaine. Ils entreront dans la Méditerranée en continuant l'observation de dix jours. Les navires ayant un médecin et une étuve ne subiront pas la désinfection avant le transit en quarantaine.

Art. 2. *Navires Suspects.*—Les navires suspects sont ceux à bord desquels il y a eu des cas de peste au moment du départ ou pendant la traversée mais aucun cas nouveau depuis douze jours.

Ces navires seront traités d'une façon différente, suivant qu'ils ont ou n'ont pas à bord un médecin et une étuve à désinfection.

(a) Les navires ayant un médecin et une étuve à désinfection remplissant les conditions voulues seront admis à passer le Canal de Suez en quarantaine dans les conditions du Règlement pour le transit.

(b) Les navires n'ayant ni médecin ni étuve à désinfection, seront, avant d'être admis à transiter en quarantaine, retenus à la station Sanitaire pendant le temps nécessaire pour opérer la désinfection du linge sale, du linge de corps, et autres objets susceptibles, et pour s'assurer de l'état sanitaire du navire.

S'il s'agit d'un navire postal ou d'un paquebot spécialement affecté au transport des voyageurs, sans étuve à désinfection mais ayant un médecin à bord, si l'autorité Quarantenaire locale a l'assurance, par une constatation officielle, que les mesures d'assainissement et de désinfection ont été convenablement appliquées, soit au port de départ, soit pendant la traversée, le passage en quarantaine sera accordé.

S'il s'agit de navires postaux ou de paquebots spécialement affectés au transport des voyageurs, sans étuve à désinfection mais avec un médecin à bord, si le dernier cas de peste remonte à plus de quatorze jours et si l'état sanitaire du navire est satisfaisant, la libre pratique pourra être accordée en Égypte lorsque la désinfection du linge sale, du linge de corps, des effets à usage (vêtements), des objets et marchandises susceptibles, ainsi que celle du navire, sera terminée. (Voir Chapitre "Désinfection.")

Pour un bateau ayant un trajet indemne de moins de quatorze jours, les passagers à destination d'Égypte seront débarqués à la station Sanitaire et retenus pendant le temps nécessaire pour compléter dix jours. Leur linge sale, linge de corps, effets à usage (vêtements), et autres objets susceptibles seront désinfectés. (Voir Chapitre "Désinfection.")

Ils recevront alors la libre pratique.

Les navires qui ont un trajet indemne de moins de quatorze jours plein et qui demandent la libre pratique en Égypte seront également retenus à la station Sanitaire pendant le temps nécessaire pour compléter dix jours. Le navire, le linge sale, le linge de corps, et les effets à usage (vêtements) de l'équipage, ainsi que les marchandises susceptibles, seront désinfectés. (Voir Chapitre "Désinfection.")

L'eau potable du bord sera, dans tous les cas, renouvelée et les eaux de cale seront évacuées après désinfection.

Art. 3. *Navires infectés*, c'est-à-dire, ayant de la peste à bord ou ayant présenté des cas de peste depuis douze jours. Ils se divisent en navires avec médecin et appareil à désinfection (étuve) et navires sans médecin et sans appareil à désinfection (étuve).

(a) Les navires sans médecin et sans appareil à désinfection (étuve) seront arrêtés aux Sources de Moïse, les personnes atteintes de peste débarquées et isolées dans un hôpital. La désinfection sera pratiquée d'une façon complète. Les autres passagers seront débarqués et isolés par groupes aussi peu nombreux que possible, de manière que l'ensemble ne soit pas solidaire d'un groupe particulier si la peste venait à se développer. Le linge sale, les objets à usage, les vêtements de l'équipage et des passagers seront désinfectés, ainsi que le navire.

Il est bien entendu qu'il ne s'agit pas du déchargement des marchandises mais seulement de la désinfection de la partie du navire qui a été infectée.

Les passagers resteront dix jours à l'établissement des Sources de Moïse; lorsque les cas de peste remonteront à plusieurs jours, la durée de l'isolement sera diminuée. Cette durée variera suivant l'époque de l'apparition du dernier cas:

Ainsi, lorsque le dernier cas se sera produit depuis neuf, dix, ou douze jours, la durée de l'observation sera de vingt-quatre heures; s'il s'est produit depuis huit jours, l'observation sera de deux jours;

s'il s'est produit depuis sept jours, l'observation sera de trois jours, et ainsi de suite, comme cela est indiqué au Tableau placé plus loin.

(b) Navires avec médecin et appareil de désinfection (étuve).

Les navires avec médecin et étuve seront arrêtés aux Sources de Moïse.

Le médecin du bord déclarera sous serment quelles sont les personnes à bord atteintes de peste. Ces malades seront débarqués et isolés.

Après le débarquement de ces malades, le linge sale du reste des passagers et de l'équipage subira la désinfection à bord.

Lorsque la peste se sera montrée exclusivement dans l'équipage, la désinfection du linge ne portera que sur le linge sale de l'équipage et le linge des postes de l'équipage.

Le médecin du bord indiquera aussi, sous serment, la partie ou le compartiment du navire et la section de l'hôpital dans lesquels le ou les malades auront été transportés.

Il déclarera également sous serment quelles sont les personnes qui ont été en rapport avec le pestiféré depuis la première manifestation de la maladie, soit par des contacts directs, soit par des contacts avec des objets capables de transmettre l'infection. Ces personnes seulement seront considérées comme suspectes.

La partie ou le compartiment du navire et la section de l'hôpital dans lesquels le ou les malades auront été transportés, seront complètement désinfectés. On entend par "partie du navire," la cabine du malade, les cabines attenantes, le couloir de ces cabines, le pont, les parties du pont sur lesquelles le ou les malades auraient séjourné.

S'il est impossible de désinfecter la partie ou le compartiment du navire qui a été occupé par les personnes atteintes de peste, sans débarquer les personnes déclarées suspectes, ces personnes seront placées sur un autre navire spécialement affecté à cet usage ou débarquées et logées dans l'établissement Sanitaire sans contact avec les malades, lesquels seront placés dans l'hôpital.

La durée de ce séjour sur le navire ou à terre pour la désinfection sera aussi courte que possible et n'excédera pas vingt-quatre heures.

Les suspects subiront une observation soit sur leur bâtiment, soit sur le navire affecté à cet usage ; la durée de cette observation variera selon le Tableau suivant :—

Lorsque le dernier cas de peste
se sera produit dans le cours
du douzième, du onzième, du
dixième ou du neuvième jour
avant l'arrivée à Suez ...

} L'observation sera de 24 heures.

S'il s'est produit dans le cours du huitième jour avant l'arrivée à Suez ...	}	L'observation sera de	2 jours.
S'il s'est produit dans le cours du septième jour avant l'arrivée à Suez ...	}	" "	3 "
S'il s'est produit dans le cours du sixième jour avant l'arrivée à Suez ...	}	" "	4 "
S'il s'est produit dans le cours du cinquième ou quatrième jour avant l'arrivée à Suez }	}	" "	5 et 6 jours.
S'il s'est produit dans le cours du troisième ou deuxième jour avant l'arrivée à Suez, }	}	" "	7 et 8 "
S'il s'est produit un jour avant l'arrivée à Suez }	}	" "	9 jours.

Le passage en quarantaine pourra être accordé avant l'expiration des délais indiqués dans le Tableau ci-dessus si l'autorité Sanitaire le juge possible ; il sera, en tout cas, accordé lorsque la désinfection aura été accomplie, si le navire abandonne outre ses malades, les personnes indiquées ci-dessus comme suspectes.

Une étuve placée sur un ponton pourra venir accoster le navire pour rendre plus rapides les opérations de désinfection.

Les navires infectés demandant d'obtenir la libre pratique en Egypte seront retenus dix jours aux Sources de Moïse, à compter du dernier cas survenu à bord, et subiront la désinfection réglementaire.

Le temps pris pour les opérations de désinfection est compris dans la durée de l'observation.

Passage en Quarantaine du Canal de Suez.

1. L'autorité Sanitaire de Suéz accorde le passage en quarantaine ; le Conseil en est immédiatement informé. Dans les cas douteux, la décision est prise par le Conseil.

2. Un télégramme est aussitôt expédié à l'autorité désignée par chaque Puissance. L'expédition du télégramme sera faite aux fraix du bâtiment.

3. Lors de l'arraisonnement, le capitaine sera tenu de déclarer s'il a à son bord des équipes de chauffeurs indigènes ou de serviteurs à gages quelconques non inscrits sur le rôle d'équipage, ou le registre à cet usage. Les questions suivantes seront posées aux capitaines de

tous les navires se présentant à Suez, venant du sud. Ils y répondront sous serment :—

“ Avez-vous des auxiliaires chauffeurs ou autres gens de service non inscrits sur le rôle d'équipage ou sur le registre spécial ? Quelle est leur nationalité ? Où les avez-vous embarqués ?

Les médecins Sanitaires devront s'assurer de la présence de ses auxiliaires, et s'ils constatent qu'il y a des manquants parmi eux, chercher avec soin les causes de l'absence.

4. Un officier Sanitaire et deux gardes Sanitaires montent à bord. Ils doivent accompagner le navire jusqu'à Port-Saïd ; ils ont pour mission d'empêcher les communications et de veiller à l'exécution des mesures prescrites pendant la traversée du Canal.

5. Les voyageurs pourront s'embarquer à Port-Saïd en quarantaine. Mais tout embarquement ou tout transbordement de passager, et de marchandises sont interdits pendant le parcours du Canal de Suez à Port-Saïd.

6. Les navires transitant en quarantaine devront effectuer le parcours de Suez à Port-Saïd sans garage.

En cas d'échouage ou de garage indispensable, les opérations nécessaires seront effectuées par le personnel du bord, en évitant toute communication avec le personnel de la Compagnie du Canal de Suez,

Les transports de troupes transitant en quarantaine seront tenus de traverser le Canal seulement de jour.

S'ils doivent séjourner de nuit dans le Canal, ils prendront leur mouillage dans les grands lacs.

7. Le stationnement des navires transitant en quarantaine est interdit dans le port de Port-Saïd, sauf dans les cas prévus aux paragraphes 5 et 8. Les opérations de ravitaillement devront être pratiquées avec les moyens du bord.

Ceux des chargeurs, ou toute autre personne, qui seront montés à bord, seront isolés sur le ponton quarantenaire. Leurs vêtements y subiront la désinfection réglementaire.

8. Lorsqu'il sera indispensable, pour les navires transitant en quarantaine, de prendre du charbon à Port-Saïd, ces navires devront exécuter cette opération dans un endroit offrant les garanties nécessaires d'isolement et de surveillance sanitaire, qui sera indiqué par le Conseil Sanitaire. Pour les navires à bord desquels une surveillance efficace de cette opération est possible, et où tout contact avec les

gens du bord peut être évité, le charbonnage par les ouvriers du port sera autorisé. La nuit, le lieu de l'opération devra être éclairé à la lumière électrique.

9. Les pilotes, les électriciens, les agents de la Compagnie, et les gardes Sanitaires seront déposés à Port-Saïd, hors du port, entre les jetées; et de là conduits directement au ponton de quarantaine, où leurs vêtements subiront une désinfection complète.

Mesures à prendre pour les Navires venant en Egypte d'un Port contaminé de Peste par la Méditerranée.

1. Les navires ordinaires indemnes venant d'un port d'Europe ou du bassin de la Méditerranée infecté de peste se présentant pour passer le Canal de Suez obtiendront le passage en quarantaine. Ils continueront leur trajet en observation de dix jours.

2. Les navires ordinaires indemnes, qui voudront aborder en Egypte, pourront s'arrêter à Alexandrie ou à Port-Saïd où les passagers acheveront le temps de l'observation, soit dans le lazaret de Gabari, soit à bord.

Passagers.

Les convalescents de peste, quelque soit le nombre de jours qu'ils aient passés à la station Sanitaire, ne recevront libre pratique qu'après complète guérison.

Les individus morts de peste seront inhumés dans le cimetière de la station Sanitaire ou, à défaut de cimetière, dans un endroit isolé et avec toutes les précautions requises.

La fosse devra être de 2 mètres de profondeur.

Les appartements occupés par les pestiférés dans la station Sanitaire seront, après leur évacuation, désinfectés avec le plus grand soin.

Le linge, les vêtements, et les objets de literie ayant servi aux pestiférés seront désinfectés dans des étuves à vapeur sous pression. Les drilles et chiffons seront détruits par le feu.

Désinfection.

Les mesures de désinfection seront appliquées conformément aux indications contenues dans l'Article 5 du Règlement contre le Choléra.

Marchandises ou Objets susceptibles.

Les objets ou marchandises susceptibles, qui peuvent être désinfectés ou prohibés à l'entrée sont:—

1. Les linges de corps, hardes et vêtements portés (effets à usage), les literies ayant servi.

2. Les chiffons et drilles sans en excepter les chiffons comprimés par la force hydraulique, qui sont transportés comme marchandises en ballots.

3. Les sacs usés, les tapis, les broderies ayant servi.

4. Les cuirs verts, les peaux non tannées, les peaux fraîches.

5. Les débris frais d'animaux, onglons, sabots, crins, poils, soies et laines brutes.

6. Les cheveux.

Les marchandises et objets susceptibles ne tomberont pas sous l'application des mesures de prohibition à l'entrée, s'il est démontré à l'autorité du pays de destination qu'ils ont été expédiés cinq jours au moins avant le premier cas de peste.

Il n'est pas admissible que les marchandises puissent être retenues en quarantaine aux frontières de terre. La prohibition pure et simple ou la désinfection sont les seules mesures qui puissent être prises.

Bagages.

La désinfection sera obligatoire pour le linge sale, les hardes, vêtements, et objets qui font partie de bagages ou de mobiliers (effets d'installation) provenant d'une circonscription territoriale déclarée contaminée, et que l'autorité Sanitaire locale considérera comme contaminés.

Marchandises.

La désinfection ne sera appliquée qu'aux marchandises et objets que le Conseil considérera comme contaminés, ou à ceux dont l'importation peut être défendue.

Il appartient au Conseil de fixer le mode et l'endroit de la désinfection.

La désinfection devra être faite de manière à ne détériorer les objets que le moins possible.

Il appartient au Conseil de régler la question relative au paiement éventuel de dommages-intérêts résultant d'une désinfection.

Les lettres et correspondances, imprimés, livres, journaux, papiers d'affaires, &c. (non compris les colis postaux) ne seront soumis à aucune restriction ni désinfection.

Provenances de Terre.

Le linge les effets les bagages des voyageurs par terre, et les marchandises susceptibles seront désinfectés.

Toutes les caravanes venant des pays contaminés ou du Hedjaz, après l'époque du pèlerinage, seront repoussées aux Sources de Moïse, où le linge, les effets à usage, &c., seront désinfectés, et où elles subiront la visite médicale individuelle. On fera la liste nominative, et du lieu de destination de tous les voyageurs qui entrent en Egypte, par voie de terre, qu'on transmettra à la présidence.

APPENDIX XII.

THE PILGRIMAGE TO MECCA.

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APPENDIX XII.

THE PILGRIMAGE TO MECCA.

Suspension of the Pilgrimage.

- No. 1.** Government of India, Home Department, Notification No. 66, dated the 21st January 1897.

It is notified for general information that the Government of Bombay have, in consequence of the existence of bubonic plague in the cities of Bombay and Karachi, temporarily cancelled, with effect from the 1st February 1897, the orders appointing these places to be ports under section 701 of the Pilgrim Ships Act, XIV of 1895, from which pilgrim ships may depart or proceed, and at which they may discharge pilgrims. The ports of Calcutta and Madras remain open to pilgrim traffic.

- No. 2** Government of India, Home Department, Notification No. 507, dated the 16th February 1897.

In exercise of the powers conferred by section 2, sub-section 1 of the Epidemic Diseases Act, 1897, the Governor General in Council is pleased to direct that no person resident permanently or temporarily in the Bombay Presidency or Sind, and no person who, though not resident in the Bombay Presidency or Sind, has entered the Bombay Presidency or Sind with the object of proceeding on a pilgrimage to the Hedjaz shall, until further orders, be permitted to embark on any ship at any port in British India with the object of making a pilgrimage to the Hedjaz.

The Governor General in Council is further pleased to direct that all persons who have entered the Bombay Presidency or Sind with the object of proceeding to the Hedjaz shall be placed in a camp of observation until such time as the medical officer in charge shall satisfy himself that all risk of the occurrence of plague among them has been completely abated. They shall then be sent to their homes and the railway expenses of their journey shall be met by the State.

Government of India, Home Department, Notification No. 625, dated the 20th No. 3.
February 1897.

The question of the suspension of the pilgrimage to the Hedjaz having been under the consideration of the Government of India and Her Majesty's Government, Her Majesty's Government have now come to the conclusion that, in consequence of the strong opinions of all European Governments, including Turkey, regarding the danger of plague being communicated to Europe, it is impossible to meet their demands by any measure short of the suspension of the pilgrimage for the time being.

The Governor General in Council is therefore pleased, under section 2, sub-section 1 of the Epidemic Diseases Act, 1897, to order that the pilgrimage to the Hedjaz shall be altogether suspended for the current season.

Return of Pilgrims from Mecca.

Government of Bombay, Notification No. 3118-A., dated the 5th June 1897. No. 4.

Whereas the City of Bombay is visited by an attack of a dangerous epidemic disease, namely, Bubonic Plague, and whereas it is necessary to prevent the spread of such disease, and whereas the Governor in Council thinks that the ordinary provisions of the law for the time being in force are insufficient for the purpose, he is pleased, under the powers conferred upon him by the Governor General in Council under Act III of 1897, to make the following temporary regulations to be observed by the public and by all persons whom they may concern:—

1. The master of every vessel, including buggalows and every kind of native craft, arriving at the port of Bombay with Muhammadan pilgrims from Mecca and ports in the Red Sea shall report the same at the earliest possible moment to the Health Officer of the Port through the Pilot or Water Police or other boarding officer.
2. The master shall anchor his vessel in the stream and shall not permit the departure or landing of any of his crew or passengers until permitted so to do by the Health Officer of the Port or the Commissioner of Police, Bombay.
3. All Muhammadan pilgrims arriving by any such vessel as aforesaid shall on demand give their names and addresses and mention their intentions regarding future movements to the Health Officer of the Port and the Water Police or other Police authority requiring such information.

4. The Commissioner of Police, Bombay, may, if necessary, make suitable arrangements to effectuate the detention, on board any such vessel as aforesaid or on shore, of any of such Muhammadan pilgrims until proper arrangements for their despatch towards their destinations by road, rail, or sea from Bombay can be perfected and carried out.
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- No. 5. Government of Bombay, Notification No. 3388, dated the 23rd June 1897.

Under Act III of 1897 disembarkation of pilgrims returning from the Hedjaz is prohibited, pending further orders at all ports in the Bombay Presidency with the exception of Bombay.

- No. 6. Government of Bombay, Notification No. 4058, dated the 24th July 1897.

The following modifications are made in Government Notification No. 3388, dated 23rd June 1897 :—

Between the words "pilgrims" and "returning" insert "and any other persons;" and at the end of the notification add "and no communication between returning pilgrims and the shore shall be allowed at any places in the Bombay Presidency other than Bombay."

- No. 7. Government of Bombay, Notification No. 4314, dated the 7th August 1897.

The following modification is made in Government Notification No. 4058, dated 24th July 1897 :—

For the words "returning pilgrims" substitute the words "returning pilgrim ships."

